SONY®

PAL/SECAM

# Video Equipment

## 1998

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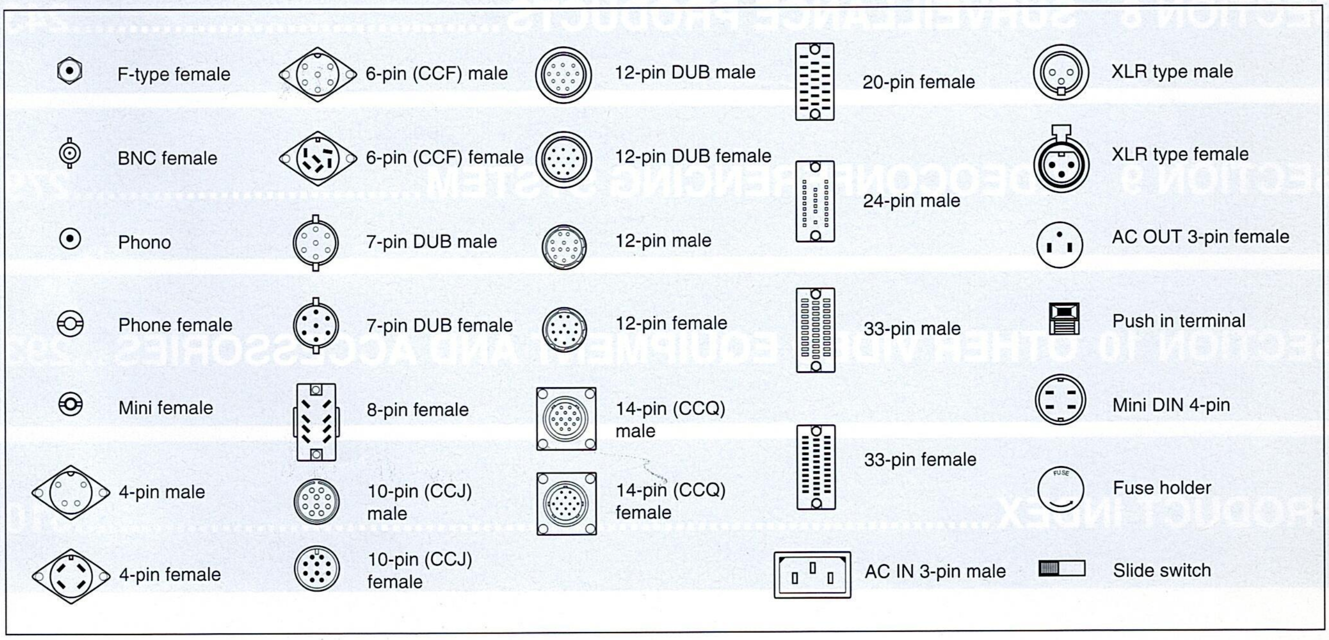
F-type female
BNC female
Phono
Phone female
Mini female
4-pin male
4-pin female
6-pin (CCF) male
6-pin (CCF) female
7-pin DUB male
7-pin DUB female
8-pin female
10-pin (CCJ) male
10-pin (CCJ) female
12-pin DUB male
12-pin DUB female
12-pin male
12-pin female
14-pin (CCQ) male
14-pin (CCQ) female
20-pin female
24-pin male
33-pin male
33-pin female
AC IN 3-pin male
XLR type male
XLR type female
AC OUT 3-pin female
Push in terminal
Mini DIN 4-pin
Fuse holder
FUSE
Slide switch

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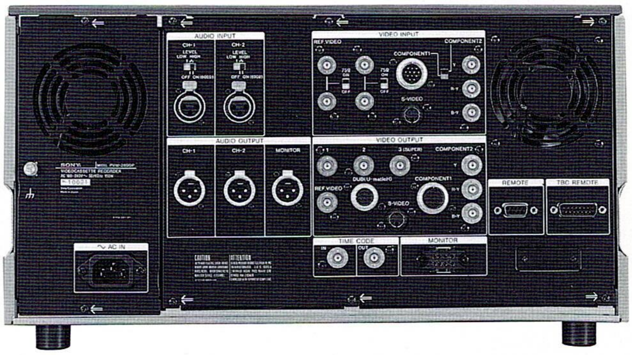
# 1-1 Betacam SP 2000PRO VTRs

## PVW-2800P

### Recorder/player

•Superior picture quality, inherent in the Betacam SP format •More than 100 minutes of recording/playback time using L-size Metal (for both recording and playback) or Oxide (for playback only) cassettes •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with Dolby C-type NR (Noise Reduction) system •RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, DVCAM VTRs) •Built-in comprehensive editing facilities •Dynamic Motion Control with memory provides slow-motion editing capability (when used with a player VTR equipped with DT function) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits generator and reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation •Y/R-Y/-Y component signal inputs and outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) input/output connectors •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 25 kg/55 lb 2 oz) •Low power consumption (150W)



Supplied accessories: AC power cord
Remote control cable RCC-5G (9-pin)
PSW 4 × 16 screws for rack mounting (4)
Operation manual

Optional accessories: TBC Remote Controller UVR-60P
Component colour corrector BVX-10P
Control panel extention kit BKW-2010
U-matic DUB out kit BKW-2030
Control panel case BK-803
12-pin dubbing cable VDC-C5 (5 m)
Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m)
Rack mount kit RMM-110
S-video cable SYC-2/5 (2 m/5 m)

## Specifications

**General**

Type: Editing recorder/player
Video recording system: Rotary 4 head helical scan
Luminance: FM recording
Chrominance: FM recording (CTDM recording)
Video Signal system: CCIR monochrome/PAL colour
Operating temperature: 5 to 40°C (41 to 104°F)
Storage temperature: –20 to 60°C (–4 to 140°F)
Power requirements: AC 198 to 264V, 48 to 64Hz
Power consumption: 150W
Humidity: Less than 80% (relative humidity)
Mass: Approx. 25 kg (55 lb 2 oz)
Dimensions: 427 (W) × 237 (H) × 549 (D) mm
($16^{7}/_{8} \times 9^{3}/_{8} \times 21^{5}/_{8}$ inches)
(including projecting parts)
Tape speed: 101.5 mm/s
REC/Playback time: More than 100min with BCT-90MLA
More than 35min with BCT-30MA
Fast Foward/Rewind time:
Less than 3min with BCT-90MLA
Search speed:
SHUTTLE 19 steps, still to 24 times normal speed, forward and reverse
JOG Frame by frame, forward and reverse

| | Metal Particle Tape | Oxide Tape*1 |
|---|---|---|
| **Video performance** | | |
| Bandwidth: | | |
| Luminance (50% modulation) | 25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB | 25Hz to 4.0MHz $^{+0.5}_{-6.0}$ dB |
| Colour difference (50% modulation) | 25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB | 25Hz to 1.5MHz $^{+0.5}_{-3.0}$ dB |
| S/N ratio: | | |
| Luminance | More than 48dB | More than 46dB |
| Chrominance | | |
| AM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| PM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| Differential gain | Less than 3% | — |
| Differential phase | Less than 3° | — |
| K-factor (2T pulse) | Less than 2% | Less than 3% |
| Y/C delay | Less than 20ns | Less than 20ns |
| **Audio performance** | | |
| Frequency response (20dB below peak level)*2 | 50Hz to 15kHz $^{+1.5}_{-3.0}$ dB | 50Hz to 15kHz ±3.0dB |
| S/N ratio (at peak level*2 weighed CCIR 468-3) | More than 68dB (Dolby NR ON) | More than 62dB (Dolby NR ON) |
| Distortion (at 1kHz) at operational level (4dBu) | Less than 1.0% | Less than 2.0% |
| Wow and flutter (DIN45507) | Less than 0.1% rms | Less than 0.1% rms |

**Signal inputs**

REF VIDEO IN (BNC): 1.0Vp-p, 75Ω
VIDEO IN (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
COMPONENT IN 1 (12-pin male)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT IN 2 (BNC × 3)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
S-VIDEO IN: Y: 1.0Vp-p, 75Ω
C: 0.3Vp-p (burst), 75Ω
AUDIO IN CH-1/2 (XLR 3-pin female):
LOW –60dBu, 3kΩ, balanced
HIGH +4dBu, 600Ω/10kΩ selectable, balanced
TIME CODE IN (BNC): 0.5V to 18Vp-p, 10kΩ

**Signal outputs**

VIDEO OUT 1 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 3 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT 1 (12-pin male)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT OUT 2 (BNC × 3)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
AUDIO LINE OUT (XLR 3-pin male) CH-1/2:
+4dBu, 600Ω, balanced
AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2:
+4dBu, 600Ω, balanced
U-matic DUB OUT (with an optional BKW-2030):
Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω
S-VIDEO OUT: Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT (BNC): 1.2Vp-p, 75Ω

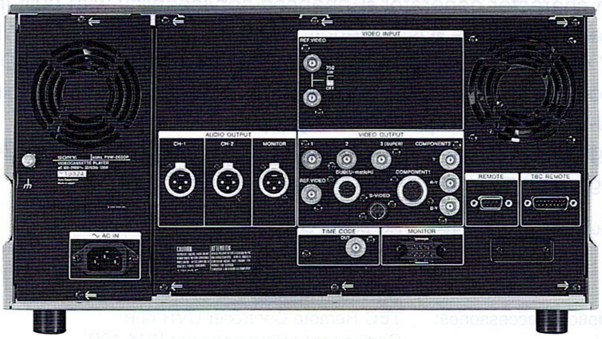
*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.
*2 Peak level: +8dB above operational level.
*3 Video amplitude 100/0/100/0 colour bars.

## PVW-2650P

BETACAM SP 2000PRO

### Player with DT

•Superior picture quality, inherent in the Betacam SP format •Dynamic Tracking (DT) provides broadcast quality noiseless playback within –1 to +3 times normal speed •More than 100 minutes of playback time using the L-size cassettes with Metal or Oxide tape •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with the Dolby C-type NR (Noise Reduction) system •Direct RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, DVCAM VTRs) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation •Y/R-Y/B-Y component signal outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) output connector •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 25 kg/55 lb 2 oz) •Low power consumption (130W)



Supplied accessories: AC power cord
Remote control cable RCC-5G (9-pin)
PSW 4 × 16 screws for rack mounting (4)
Operation manual

Optional accessories: TBC Remote Controller UVR-60P
Component colour corrector BVX-10P
Control panel extension kit BKW-2010
U-matic DUB out kit BKW-2030
Control panel case BK-803
12-pin dubbing cable VDC-C5 (5 m)
Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m)
Rack mount kit RMM-110
S-Video cable SYC-2/5 (2 m/5 m)

## Specifications

**General**

Type: Editing player with DT
Video recording system: Rotary 4 head helical scan
Luminance: FM recording
Chrominance: FM recording (CTDM recording)
Video signal system: CCIR monochrome/PAL colour
Operating temperature: 5 to 40°C (41 to 104°F)
Storage temperature: –20 to 60°C (–4 to 104°F)
Power requirements: AC 198 to 264V, 48 to 64Hz
Power consumption: 130W
Humidity: Less than 80% (relative humidity)
Mass: Approx. 25 kg (55 lb 2 oz)
Dimensions: 427 (W) × 237 (H) × 549 (D) mm ($16^{7}/_{8} \times 9^{3}/_{8} \times 21^{5}/_{8}$ inches) (including projecting parts)
Tape speed: 101.5 mm/s
Playback time: More than 100min with BCT-90MLA
More than 35min with BCT-30MA
Fast Forward/Rewind time: Less than 3min with BCT-90MLA
Search speed:
SHUTTLE: 19 steps, still to 24 times normal speed, forward and reverse
JOG: Frame by frame, forward and reverse
Dynamic Tracking range: –1 to +3 times normal speed

| | Metal Particle Tape | Oxide Tape*1 |
|---|---|---|
| **Video performance** | | |
| Bandwidth: | | |
| Luminance (50% modulation) | 25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB | 25Hz to 4.0MHz $^{+0.5}_{-6.0}$ dB |
| Colour difference (50% modulation) | 25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB | 25Hz to 1.5MHz $^{+0.5}_{-3.0}$ dB |
| S/N ratio: | | |
| Luminance | More than 48dB | More than 46dB |
| Chrominance | | |
| AM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| PM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| Differential gain | Less than 3% | — |
| Differential phase | Less than 3° | — |
| K-factor (2T pulse) | Less than 2% | Less than 3% |
| Y/C delay | Less than 20ns | Less than 20ns |
| **Audio performance** | | |
| Frequency response (20dB below peak level)*2 | 50Hz to 15kHz $^{+1.5}_{-3.0}$ dB | 50Hz to 15kHz ±3.0dB |
| S/N ratio (at peak level*2 weighed CCIR 468-3) | More than 68dB (Dolby NR ON) | More than 62dB (Dolby NR ON) |
| Distortion (at 1kHz) at operational level (4dBu) | Less than 1.0% | Less than 2.0% |
| Wow and flutter (DIN45507) | Less than 0.1% rms | Less than 0.1% rms |

**Signal inputs**

REF VIDEO IN (BNC): 1.0Vp-p, 75Ω

**Signal outputs**

VIDEO OUT 1 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 3 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT 1 (12-pin male)*3:
Luminance: 1.0Vp-p, 75Ω, sync negative
Colour difference: R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT OUT 2 (BNC × 3)*3:
Luminance: 1.0Vp-p, 75Ω, sync negative
Colour difference: R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
AUDIO LINE OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
U-matic DUB OUT (with an optional BKW-2030): Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω
S-VIDEO OUT: Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT (BNC): 1.2Vp-p, 75Ω

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*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.
*2 Peak level :+8dB above operational level.
*3 Video amplitude 100/0/100/0 colour bars.

## PVW-2600P

**BETACAM SP 2000PRO**

### Player

•Superior picture quality, inherent in the Betacam SP format •More than 100 minutes of playback time using the L-size Metal or Oxide cassettes •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with the Dolby C-type NR (Noise Reduction) system •RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, DVCAM VTRs) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation •Y/R-Y/B-Y component signal outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) output connector •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 24.5 kg/54 lb) •Low power consumption (120W)

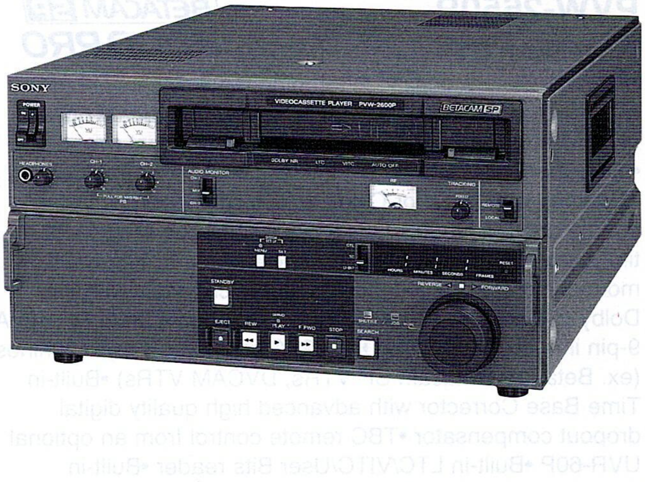
| | |
|---|---|
| Supplied accessories: | AC power cord<br>Remote control cable RCC-5G (9-pin)<br>PSW 4 × 16 screws for rack mounting (4)<br>Operation manual |
| Optional accessories: | TBC Remote Controller UVR-60P<br>Component colour corrector BVX-10P<br>Control panel extention kit BKW-2010<br>U-matic DUB out kit BKW-2030<br>Control panel case BK-803<br>12-pin dubbing cable VDC-C5 (5 m)<br>Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m)<br>Rack mount kit RMM-110<br>S-video cable SYC-2/5 (2 m/5 m) |

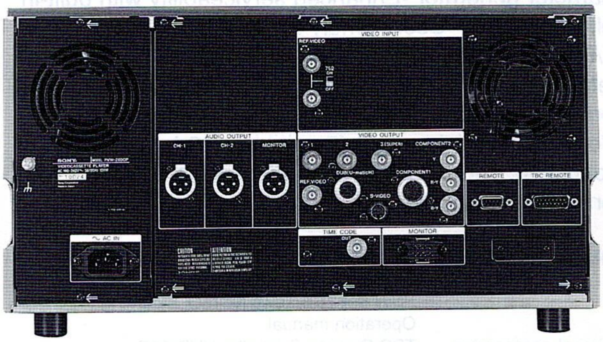
## Specifications

**General**

| | |
|---|---|
| Type: | Editing player |
| Video recording system: | Rotary 4 head helical scan<br>Luminance: FM recording<br>Chrominance: FM recording (CTDM recording) |
| Video Signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 120W |
| Humidity: | Less than 80% (relative humidity) |
| Mass: | Approx. 24.5 kg (54 lb) |
| Dimensions: | 427 (W) × 237 (H) × 549 (D) mm<br>($16\,{}^{7}/_{8} \times 9\,{}^{3}/_{8} \times 21\,{}^{5}/_{8}$ inches)<br>(including projecting parts) |
| Tape speed: | 101.5 mm/s |
| Playback time: | More than 100min with BCT-90MLA<br>More than 35min with BCT-30MA |
| Fast Foward/Rewind time: | Less than 3min with BCT-90MLA |
| Search speed: | |
| SHUTTLE | 19 steps, still to 24 times normal speed, forward and reverse |
| JOG | Frame by frame, forward and reverse |

| | Metal Particle Tape | Oxide Tape*1 |
|---|---|---|
| **Video performance** | | |
| Bandwidth: | | |
| Luminance (50% modulation) | 25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB | 25Hz to 4.0MHz $^{+0.5}_{-6.0}$ dB |
| Colour difference (50% modulation) | 25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB | 25Hz to 1.5MHz $^{+0.5}_{-3.0}$ dB |
| S/N ratio: | | |
| Luminance | More than 48dB | More than 46dB |
| Chrominance | | |
| AM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| PM | More than 48dB (1.0MHz LPF) | More than 48dB (0.5MHz LPF) |
| Differential gain | Less than 3% | — |
| Differential phase | Less than 3° | — |
| K-factor (2T pulse) | Less than 2% | Less than 3% |
| Y/C delay | Less than 20ns | Less than 20ns |
| **Audio performance** | | |
| Frequency response (20dB below peak level)*2 | 50Hz to 15kHz $^{+1.5}_{-3.0}$ dB | 50Hz to 15kHz ±3.0dB |
| S/N ratio (at peak level*2 weighed CCIR 468-3) | More than 68dB (Dolby NR ON) | More than 62dB (Dolby NR ON) |
| Distortion (at 1kHz) at operational level (4dBu) | Less than 1.0% | Less than 2.0% |
| Wow and flutter (DIN45507) | Less than 0.1% rms | Less than 0.1% rms |





**Signal inputs**

| | |
|---|---|
| REF VIDEO IN (BNC): | 1.0Vp-p, 75Ω |

**Signal outputs**

| | |
|---|---|
| VIDEO OUT 1 (BNC): | Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT 2 (BNC): | Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT 3 (BNC): | Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion |
| COMPONENT OUT 1 (12-pin male)*3: | |
| Luminance | 1.0Vp-p, 75Ω, sync negative |
| Colour difference | R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω |
| COMPONENT OUT 2 (BNC × 3)*3: | |
| Luminance | 1.0Vp-p, 75Ω, sync negative |
| Colour difference | R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω |
| AUDIO LINE OUT (XLR 3-pin male) CH-1/2: | +4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2: | +4dBu, 600Ω, balanced |
| U-matic DUB OUT (with an optional BKW-2030): | Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω |
| S-VIDEO OUT: | Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω |
| TIME CODE OUT (BNC): | 1.2Vp-p, 75Ω |

*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.

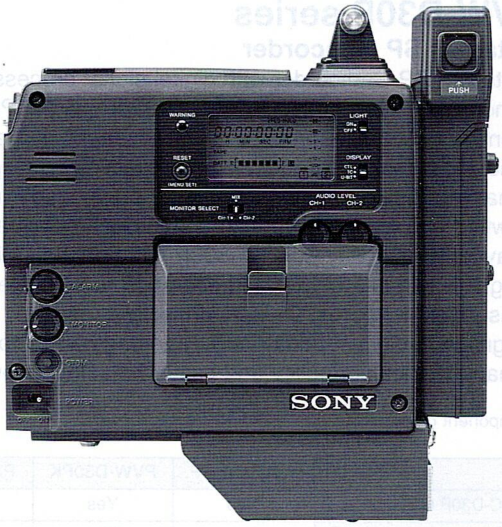
*2 Peak level: +8dB above operational level.

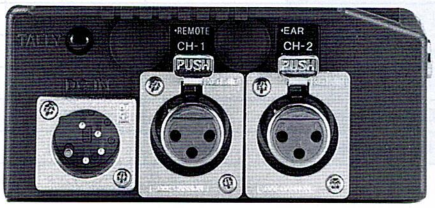
*3 Video amplitude 100/0/100/0 colour bars.

## PVV-3P

### Dockable recorder unit

•Superior picture quality, inherit in the Betacam SP format •Compact and light-weight design •Low power consumption •Directly connected with DXC-D30P/D30WSP/637P/327BP via the Pro 50-pin connector •Supplied with 20-pin connector for full colour playback in field through the optional VA-300P and VA-500P •More than 35 minutes of recording time using the S-size cassette (Metal particle tape only) •Two longitudinal audio channels with the Dolby C-type Noise Reduction system •Luminance or CTDM viewfinder •Full range of control provided (Fast forward/ Rewind/Play/Stop/Eject) •Record review function •Built-in LTC/VITC/User Bits generator and LTC reader with exteranl time code lock capability •Frame accurate back space editing without time code discontinuity at the transition points •8-digit LCD display •Real time and date recording function •Built-in loud speaker •Digital hours meter •Built-in microphone external power supply (+48V, CH-1/2) •Built-in self diagnostics with character display on TV monitor •Enhanced serviceability





| | |
|---|---|
| Supplied accessories: | Shoulder belt<br>Screws M4 × 12 (2)<br>M4 × 6 (2)<br>Operation manual<br>Handle<br>Lithium battery(CR2025) |
| Optional accessories: | NiCd Rechargeable Battery NP-1B, BA-90A<br>Battery case (for BP-90A) DC-500<br>Battery case (for NP-1B) DC-520<br>Battery charger BC-1WDCE<br>Battery charger BC-410CE<br>Camera adaptor CMA-8ACE<br>Camera adaptor (for BVP series) CA-514<br>Power cable (for CMA-8ACE) CCQX-3<br>Playback adaptor VA-300P |

### Specifications

**General**

| | |
|---|---|
| Type: | Dockable recorder unit |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | -20 to 60°C (-4 to 140°F) |
| Power requirements: | DC 12V $^{+5.0}_{-1.0}$ V |
| Power consumption: | 10W |
| Humidity: | Less than 85% (relative humidity) |
| Mass: | Approx. 2.8 kg (6 lb 2 oz) |
| Tape speed: | 101.5 mm/s |
| REC/Playback time: | More than 35min with BCT-30MA/UVWT-30MA |
| Fast Forward time: | Less than 7.5min with BCT-30MA/UVWT-30MA |
| Rewind time: | Less than 5.5min with BCT-30MA/UVWT-30MA |
| Continuous operating time: | Approx. 60min with NP-1B<br>(PVV-3P and DXC-637P) |

**Video performance (Metal Particle Tape only)**[*1]

| | |
|---|---|
| Bandwidth: | Luminance(50% modulation):<br>25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB<br>Colour difference (50% modulation):<br>25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB |
| S/N ratio: | Luminance(Component IN/OUT):<br>More than 48dB<br>Colour difference (AM/PM):<br>More than 48dB |
| K-pulse(2T): | Less than 2% |
| Y/C delay: | Less than 20ns |

**Audio performance (Metal Particle Tape only)**[*1]

Frequency response: 50Hz to 15kHz $^{+1.5}_{-3.0}$ dB

S/N ratio (at 3% distortion level):
More than 62dB (CCIR 468-3, at peak level[*3])

Distortion T.H.D. (at 1kHz reference level):
Less than 1.5%

Wow and flutter (DIN weighted):
Less than 0.15%rms

**Signal inputs/outputs**

VIDEO (from the camera head, Pro 50-pin)[*2]:
Luminance:1.0Vp-p, 1kΩ
Colour difference:
B-Y/R-Y; 0.7Vp-p, 1kΩ

GEN LOCK VIDEO IN (BNC):
1.0Vp-p, 75Ω

AUDIO IN CH-1/2 (XLR 3-pin female):
-60dBu/+4dBu selectable, high impedance, balanced

TIME CODE IN (BNC): 0.5V to 18Vp-p, 10kΩ

ENCODED VIDEO OUT (Camera Video Out, BNC):
1.0Vp-p, 75Ω

TIME CODE OUT(BNC):
1.0Vp-p, 75Ω

**Others**

| | |
|---|---|
| EARPHONE OUT: | Mini jack |
| PLAYBACK ADAPTOR: | 20-pin |
| REMOTE: | Stereo Mini Jack |

---

[*1] The specifications of "video/audio performace" were measured by playing back material on a standard PVW series that had been recorded on a PVV-3P.

[*2] Video amplitude 100/0/100/0 colour bars

[*3] Peak level: +8dB above operational level

# PVW-D30P series

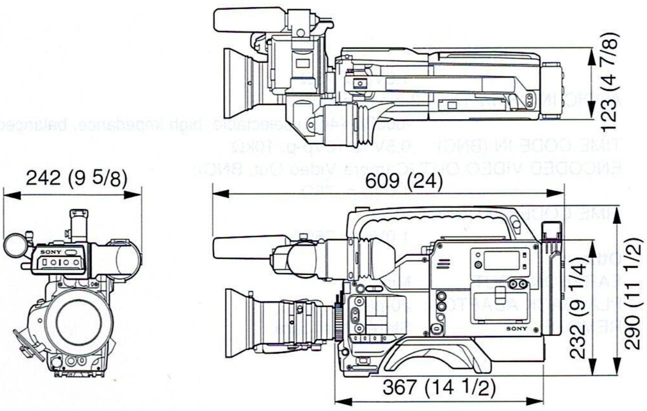
## Betacam SP camcorder

•Betacam SP Camcorder with digital signal processing camera: PVV-3P docked with DXC-D30P via the Pro 50-pin connector •Status information and messages of the PVV-3P (time code, recording audio level, remaining battery power, remaining tape time, etc.) can be superimposed on the viewfinder •Time code superimposed during playback •Playback capability with VA-300P •Compact and light weight 7.2 kg (15 lb 14 oz) in operation •Low power consumption: approx. 24 W •Lightweight rugged magnesium diecast body •Large carrying handle for enhanced transportability and easier handling in low angle

Component chart

| | PVW-D30PF | PVW-D30PK | PVW-D30PL |
|---|---|---|---|
| DXC-D30P Camera head | Yes | Yes | Yes |
| PVV-3P Recorder | Yes | Yes | Yes |
| Handle for PVW-D30 | Yes | Yes | Yes |
| DFX-701CE Viewfinder | Yes | Yes | Yes |
| External microphone | Yes | Yes | Yes |
| Shoulder strap | Yes | Yes | Yes |
| VCT-U14 Tripod adaptor | Yes | Yes | Yes |
| VCL-916BYA Zoom lens | Yes | Yes | Option |
| LC-421 Carrying case | Yes | Option | Option |

Dimensions



Unit: mm (inches)

## PVW-637P series

### Betacam SP camcorder

•Coupled with PVV-3P and DXC-637P via the Pro 50-pin connector for high quality component acquisitions •Compact and lightweight: approx. 8.2 kg (18 lb 1 oz)(Both including the battery, viewfinder, microphone, zoom lens) •Low power consumption: approx. 24W with viewfinder •Lightweight rugged magnesium diecast body •Large carrying handle for enhanced transportability and easier handling in low angle.

**Component Chart**

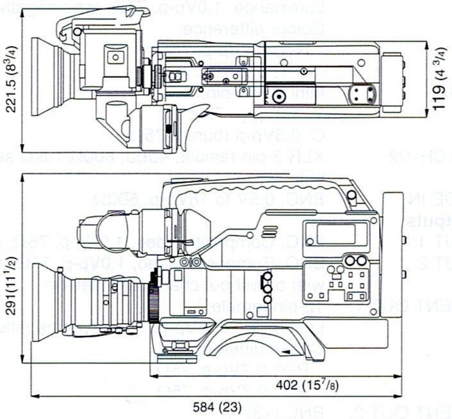
| Model<br>Composition | PVW-637PK | PVW-637PL |
|---|---|---|
| Camera head<br>DXC-637P | Yes | Yes |
| PVV-3P | Yes | Yes |
| Carrying handle<br>for camcorder | Yes | Yes |
| Zoom lens<br>VCL-916BYA | Yes | option |
| carrying case<br>LC-421 | Yes | Yes |
| External microphone<br>(Incl. Mic.Cable) | Yes | Yes |
| Viewfinder<br>DXC-601/CE | Yes | Yes |
| Tripod adaptor<br>VCT-U14 | Yes | Yes |

**Product configuration**

**PVW-637PK**

**PVW-637PL**

Dimensions



Unit: mm (inches)

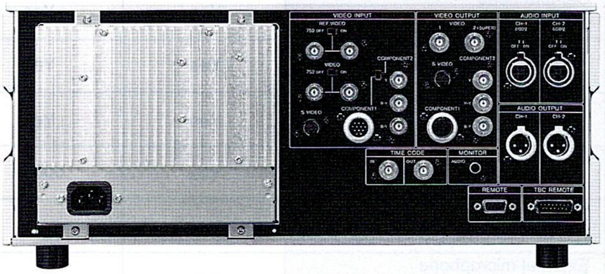
* Please see pages for the PVV-3P and the DXC-637P for their detailed information.

## UVW-1800P

### Editing recorder/player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of recording/playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Frame accurate editing: assemble and insert (video, audio CH-1, audio CH-2 and time code) editing capability when controlled from optional RS-422A equipped editing controller unit •Dedicated longitudinal time code track •Built-in Time Base Corrector with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) generator and reader •RS-422A 9-pin interface •Y/R-Y/B-Y component signal input and output via BNC or 12-pin DUB connectors •S-video (Y/C separate) input/output connectors •Optional TBC Remote Control Unit UVR-60P •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 19 kg/41 lb 14 oz), 19-inch rack mountable and low power consumption (85W)

SONY
POWER
HEADPHONES
CONTROL S
00:00:00:00
EJECT
REW
PLAY
F FWD
STOP
REC
BETACAM SP
VIDEOCASSETTE RECORDER UVW-1800P



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Remote control cable RCC-5G (9-pin)<br>Operation manual |
| Optional accessories: | TBC Remote controller UVR-60P<br>Component colour corrector BVX-10P<br>Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m)<br>12-pin dubbing cable VDC-C5 (5 m)<br>S-video cable SYC-2/5 (2 m/5 m)<br>Remote control unit DSRM-10<br>Rack mount unit RMM-130 |

## Specifications

### General

| | |
|---|---|
| Type: | Editing recorder/player |
| Video recording system: | Rotary 4 head helical scan<br>Luminance: FM recording<br>Chrominance: FM recording (CTDM recording) |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 85W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Humidity: | Less than 80% (relative humidity) |
| Dimensions: | 427 (W) × 193 (H) × 474 (D) mm<br>($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches) |
| Mass: | Approx. 19 kg (41 lb 14 oz) |
| Tape speed: | 101.5 mm/s |
| Recording/playback time: | More than 100min with UVWT-90MLA<br>More than 35min with UVWT-30MA |
| Fast forward time: | Less than 3min with UVWT-90MLA |
| Rewind time: | Less than 3min with UVWT-90MLA |
| Search speed (with optional DSRM-10)*1: | Shuttle: 15 steps, still to 16 times normal speed, forward and reverse<br>Jog: Frame by frame to ×2, forward and reverse |

### Video performance (Metal particle tape)

| | |
|---|---|
| Bandwidth (50% modulation): | Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB<br>Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB |
| S/N ratio: | Luminance (Component in/out): More than 46dB<br>Chrominance (1.0MHz LPF):<br>AM; More than 48dB<br>PM; More than 48dB |
| K-factor (2T pulse): | Less than 3% |
| Y/C delay: | Less than 30ns |

### Audio performance (Metal particle tape)

| | |
|---|---|
| Frequency responce: | 50Hz to 15kHz $^{+2.0}_{-3.0}$ dB<br>(20dB below peak level)*2 |
| S/N ratio: | More than 66dB<br>(at peak level weighed CCIR468-3)*2 |
| Distortion: | Less than 1.5%<br>(at 1kHz/at operational level 4dBu) |
| Wow and flutter: | Less than 0.15% rms (DIN 45507) |

### Signal inputs

| | |
|---|---|
| REF VIDEO IN: | BNC, 1.0Vp-p, 75Ω |
| VIDEO IN: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| COMPONENT IN 1: | 12-pin male*3,<br>Luminance: 1.0Vp-p, 75Ω, sync negative<br>Colour difference:<br>R-Y; 0.7Vp-p, 75Ω<br>B-Y; 0.7Vp-p, 75Ω |
| COMPONENT IN 2: | BNC (×3)*3,<br>Luminance: 1.0Vp-p, 75Ω, sync negative<br>Colour difference:<br>R-Y; 0.7Vp-p, 75Ω<br>B-Y; 0.7Vp-p, 75Ω |
| S-VIDEO IN: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |
| AUDIO IN CH-1/2: | XLR 3-pin female, 4dBu, 600Ω/10kΩ selectable balanced |
| TIME CODE IN: | BNC, 0.5V to 18Vp-p, 600Ω |

### Signal outputs

| | |
|---|---|
| VIDEO OUT 1: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT 2: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative, with or without character insertion |
| COMPONENT OUT 1: | 12-pin female*3,<br>Luminance: 1.0Vp-p, 75Ω, sync negative<br>Colour difference:<br>R-Y; 0.7Vp-p, 75Ω<br>B-Y; 0.7Vp-p, 75Ω |
| COMPONENT OUT 2: | BNC (×3)*3,<br>Luminance: 1.0Vp-p, 75Ω, sync negative<br>Colour difference:<br>R-Y; 0.7Vp-p, 75Ω<br>B-Y; 0.7Vp-p, 75Ω |
| AUDIO LINE OUT CH-1/2: | XLR 3-pin, male, 4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT CH-1/2: | Phono, –6dBu |
| S-VIDEO OUT: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |
| TIME CODE OUT: | BNC, 2.2Vp-p, 600Ω |

### Others

| | |
|---|---|
| REMOTE: | RS-422A 9-pin multi connector |
| TBC REMOTE: | D-sub 15-pin |
| CONTROL-S (SIRCS): | Stereo mini jack |
| HEADPHONES: | JM-60 headphone stereo jack |

### Processor adjustment range (with optional UVR-60P)

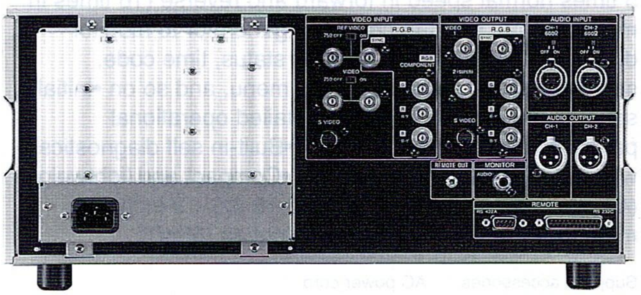
| | |
|---|---|
| Video level: | ±3dB |
| Chroma level: | ±3dB |
| Black level: | 0 to 100mV |
| System SC phase: | 360°p-p*4 |
| System sync phase: | –1 to 3μs*5 |
| Y/C delay: | ±100ns |

*1 Without DSRM-10 attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
*2 Peak level: +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars
*4 With or without UVR-60P attached
*5 Without UVR-60P attached: ±300ns

## UVW-1700GP

### CG frame recorder

•Especially designed for CG application •Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of recording/playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Dedicated longitudinal time code track •Built-in Time Base Stabilizer with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) generator and reader •RS-232C D-sub 25-pin interface /RS-422A 9-pin interface for external computer operation (switchable) •Frame accurate insert editing (video only) capability when controlled from optional RS-422A or RS-232C equipped editing controller •Y/R-Y/B-Y component signal inputs and outputs via BNC connectors are switchable to RGB input/output connector •SYNC IN/OUT connectors •S-video (Y/C separate) input/output connectors • Trigger remote out for video printers (stereo mini jack) •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 19 kg/41 lb 14 oz), 19-inch rack mountable and low power consumption (85W)



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operation manual<br>RS-232 Protocol manual |
| Optional accessories: | Component colour corrector BVX-10P<br>Remote control cable RCC-5G/10G/30G<br>(5 m/10 m/30 m)<br>S-video cable SYC-2/5 (2 m/5 m)<br>Remote control unit SVRM-100A<br>Rack mount unit RMM-130 |

## Specifications

**General**

| | |
|---|---|
| Type: | Editing reorder/player |
| Video recording system: | Rotary 4 head helical scan<br>Luminance: FM recording<br>Chrominance: FM recording (CTDM recording) |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 85W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Humidity: | Less than 80% (relative humidity) |
| Dimensions: | 427 (W) × 193 (H) × 474 (D) mm<br>($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches) |
| Mass: | Approx. 19 kg (41 lb 14 oz) |
| Tape speed: | 101.5 mm/s |
| Recording/playback time: | More than 100min with UVWT-90MLA<br>More than 35min with UVWT-30MA |
| Fast forward time: | Less than 3min with UVWT-90MLA |
| Rewind time: | Less than 3min with UVWT-90MLA |
| Search speed (with optional SVRM-100A)[*1] | Shuttle: 15 steps, still to 16 times normal speed, forward and reverse<br>Jog: Frame by frame to ×2, forward and reverse |

**Video performance (Metal particle tape)**

| | |
|---|---|
| Bandwidth (50% modulation): | Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$dB<br>Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0d}$B |
| S/N ratio: | Luminance (Component in/out): More than 46dB<br>Chrominance (1.0MHz LPF):<br>AM; More than 48dB<br>PM; More than 48dB |
| K-factor (2T pulse): | Less than 3% |
| Y/C delay: | Less than +30ns |

**Audio performance (Metal particle tape)**

| | |
|---|---|
| Frequency response: | 50Hz to 15kHz $^{+2.0}_{-3.0}$ dB<br>(20dB below peak level)[*2] |
| S/N ratio: | More than 66dB<br>(at peak level massed CCIR468-3)[*2] |
| Distortion: | Less than 1.5%<br>(at 1kHz/at operational level 4dBu) |
| Wow and flutter: | Less than 0.15% rms (DIN 45507) |

**Signal inputs**

| | |
|---|---|
| REF VIDEO: | BNC (×2),<br>Composite video: 1.0Vp-p, 75Ω, sync negative<br>Composite sync: 0.2 to 5.0Vp-p, 75Ω,<br>sync negative (with component I/O) |
| VIDEO IN: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| RGB/COMPONENT IN: | BNC (×3)[*3],<br>Y/Sync on G: 1.0Vp-p, 75Ω, sync negative<br>G: 0.7Vp-p, 75Ω<br>R-Y/R: 0.7Vp-p, 75Ω<br>B-Y/B: 0.7Vp-p, 75Ω |
| S-VIDEO IN: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |
| AUDIO IN CH-1/2: | XLR 3-pin female, 4dBu, 600Ω/10kΩ selectable, balanced |

**Signal outputs**

| | |
|---|---|
| VIDEO OUT 1: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT 2: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative, with or without character insertion |
| RGB/COMPONENT OUT: | BNC (×3)[*3],<br>Y/Sync on G: 1.0Vp-p, 75Ω, sync negative<br>G: 0.7Vp-p, 75Ω<br>R-Y/R: 0.7Vp-p, 75Ω<br>B-Y/B: 0.7Vp-p, 75Ω |
| AUDIO LINE OUT CH-1/2: | XLR 3-pin, male 4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT CH-1/2: | Phono, –6dBu |
| S-VIDEO OUT: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |
| RGB SYNC OUT: | 2Vp-p, 75Ω, negative (at RGB composite sync) |

**Others**

| | |
|---|---|
| REMOTE: | RS-232C 25-pin multi connector<br>RS-422A 9-pin multi connector |
| REMOTE OUT: | Stereo mini jack (for trigger to video printer) |
| CONTROL-S (SIRCS): | Stereo mini jack |
| HEADPHONES: | JM-60 headphone stereo jack |

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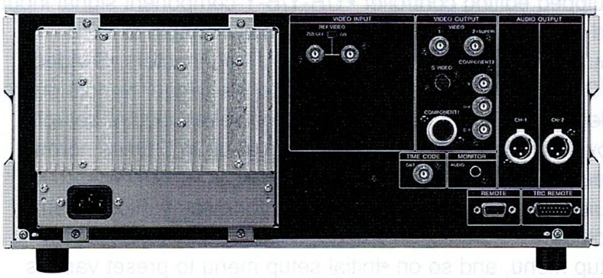
*1 Without SVRM-100A attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
*2 Peak level: +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars.

## UVW-1600P

### Editing player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Dedicated longitudinal time code track •Built-in Time Base Corrector with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) reader •RS-422A 9-pin interface •Y/R-Y/B-Y component signal output via BNC or 12-pin DUB connector •S-video (Y/C separate) output connector •Optional TBC Remote Control Unit UVR-60P •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 18 kg/39 lb 10 oz), 19-inch rack mountable and low power consumption (65W)



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Remote control cable RCC-5G (9-pin)<br>Operation manual |
| Optional accessories: | TBC Remote controller UVR-60P<br>Component colour corrector BVX-10P<br>Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m)<br>12-pin dubbing cable VDC-C5 (5 m)<br>S-video cable SYC-2/5 (2 m/5 m)<br>Remote control unit DSRM-10<br>Rack mount unit RMM-130 |

### Specifications

**General**

| | |
|---|---|
| Type: | Editing player |
| Video recording system: | Rotary 4 head helical scan<br>Luminance: FM recording<br>Chrominance: FM recording (CTDM recording) |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 65W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Humidity: | Less than 80% (relative humidity) |
| Dimensions: | 427 (W) × 193 (H) × 474 (D) mm<br>($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches) |
| Mass: | Approx. 18 kg (39 lb 10 oz) |
| Tape speed: | 101.5 mm/s |
| Playback time: | More than 100min with UVWT-90MLA<br>More than 35min with UVWT-30MA |
| Fast forward time: | Less than 3min with UVWT-90MLA |
| Rewind time: | Less than 3min with UVWT-90MLA |
| Search speed (with optional DSRM-10)*1: | Shuttle: 15 steps, still to 16 times normal speed, forward and reverse<br>Jog: Frame by frame to ×2, forward and reverse |

**Video performance (Metal particle tape)**

| | |
|---|---|
| Bandwidth (50% modulation): | Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB<br>Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB |
| S/N ratio: | Luminance (Component out): More than 46dB<br>Chrominance (1.0MHz LPF):<br>AM; More than 48dB<br>PM; More than 48dB |
| K-factor (2T pulse): | Less than 3% |
| Y/C delay: | Less than 30ns |

**Audio performance (Metal particle tape)**

| | |
|---|---|
| Frequency responce: | 50Hz to 15kHz $^{+2.0}_{-3.0}$dB<br>(20dB below peak level)*2 |
| S/N ratio: | More than 66dB<br>(at peak level weighed CCIR468-3)*2 |
| Distortion: | Less than 1.5%<br>(at 1kHz/at operational level 4dBu) |
| Wow and flutter: | Less than 0.15% rms (DIN45507) |

**Signal inputs**

| | |
|---|---|
| REF VIDEO IN: | BNC, 1.0Vp-p, 75Ω |

**Signal outputs**

| | |
|---|---|
| VIDEO OUT 1: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT 2: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion |
| COMPONENT OUT 1: | 12-pin female*3,<br>Luminance: 1.0Vp-p, 75Ω, sync negative<br>Colour difference:<br>R-Y; 0.7Vp-p, 75Ω<br>B-Y; 0.7Vp-p, 75Ω |
| COMPONENT OUT 2: | BNC (×3)*3,<br>Luminance: 1.0Vp-p, 75Ω, sync negative<br>Colour difference:<br>R-Y; 0.7Vp-p, 75Ω<br>B-Y; 0.7Vp-p, 75Ω |
| AUDIO LINE OUT CH-1/2: | XLR 3-pin, male, 4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT CH-1/2: | Phono, –6dBu |
| S-VIDEO OUT: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |
| TIME CODE OUT: | BNC, 2.2Vp-p, 600Ω |

**Others**

| | |
|---|---|
| REMOTE: | RS-422A 9-pin multi connector |
| TBC REMOTE: | D-sub 15-pin |
| CONTROL-S (SIRCS): | Stereo mini jack |
| HEADPHONES: | JM-60 headphone stereo jack |

**Processor adjustment range (with optional UVR-60P)**

| | |
|---|---|
| Video level: | ±3dB |
| Chroma level: | ±3dB |
| Black level: | 0 to 100mV |
| System SC phase: | 360°p-p*4 |
| System sync phase: | –1 to 3μs*5 |
| Y/C delay: | ±100ns |

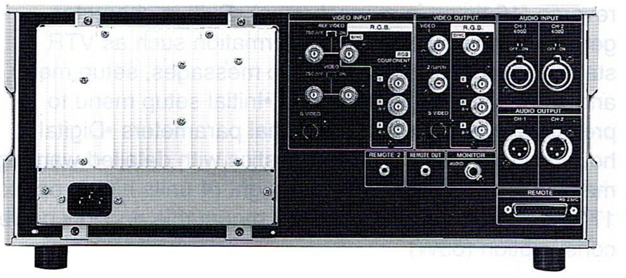
*1 Without DSRM-10 attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
*2 Peak level: + 8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars
*4 With or without UVR-60P attached
*5 Without UVR-60P attached: ±300ns

## UVW-1400AP

### Recorder/player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of recording/playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Dedicated longitudinal time code track •Built-in Time Base Stabilizer with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) generator and reader •25-pin remote control interface complied with RS-232C interface for external computer operation •Y/R-Y/B-Y component signal inputs and outputs via BNC connectors are switchable to RGB input/output connector •S-video (Y/C separate) input/output connectors •Foot switch control capability •Trigger remote out for video printers (stereo mini jack) •Back space editing for smooth transitions between scenes with optional remote controller •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Auto repeat function •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 19 kg/41 lb 14 oz), 19-inch rack mountable and low power consumption (85W)

SONY
POWER
HEADPHONES
CONTROL S
00:00:00:00
BETACAM SP
VIDEOCASSETTE RECORDER UVW-1400AP RGB



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operation manual<br>RS-232C Protocol manual |
| Optional accessories: | Component colour corrector BVX-10P<br>S-video cable SYC-2/5 (2 m/5 m)<br>Remote control unit SVRM-100A<br>Foot switch FS-20<br>Rack mount unit RMM-130 |

## Specifications

**General**

| | |
|---|---|
| Type: | Recorder/player |
| Video recording system: | Rotary 4 head helical scan<br>Luminance: FM recording<br>Chrominance: FM recording (CTDM recording) |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 85W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Humidity: | Less than 80% (relative humidity) |
| Dimensions: | 427 (W) × 193 (H) × 474 (D) mm<br>($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches) |
| Mass: | Approx. 19 kg (41 lb 14 oz) |
| Tape speed: | 101.5 mm/s |
| Recording/playback time: | More than 100min with UVWT-90MLA<br>More than 35min with UVWT-30MA |
| Fast forward time: | Less than 3min with UVWT-90MLA |
| Rewind time: | Less than 3min with UVWT-90MLA |
| Search speed (with optional SVRM-100A)*1: | Shuttle: 15 steps, still to 16 times normal speed, forward and reverse<br>Jog: Frame by frame to ×2, forward and reverse |

**Video performance (Metal particle tape)**

| | |
|---|---|
| Bandwidth (50% modulation): | Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB<br>Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB |
| S/N ratio: | Luminance (Component in/out): More than 46dB<br>Chrominance (1.0MHz LPF):<br>AM; More than 48dB<br>PM; More than 48dB |
| K-factor (2T pulse): | Less than 3% |
| Y/C delay: | Less than 30ns |

**Audio performance (Metal particle tape)**

| | |
|---|---|
| Frequency responce: | 50Hz to 15kHz $^{+2.0}_{-3.0}$ dB<br>(20dB below peak level)*2 |
| S/N ratio: | More than 66dB<br>(at peak level weighed CCIR468-3)*2 |
| Distortion: | Less than 1.5%<br>(at 1kHz/at operational level 4dBu) |
| Wow and flutter: | Less than 0.15% rms (DIN 45507) |

**Signal inputs**

| | |
|---|---|
| REF VIDEO: | BNC (×2)<br>Composite video: 1.0Vp-p, 75Ω, sync negative<br>Composite sync: 0.2 to 5.0Vp-p, 75Ω, sync negative (with component I/O) |
| VIDEO IN: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| RGB/COMPONENT IN: | BNC (×3)*3,<br>Y/Sync on G:1.0Vp-p, 75Ω, sync negative<br>G: 0.7Vp-p, 75Ω<br>R-Y/R: 0.7Vp-p, 75Ω<br>B-Y/B: 0.7Vp-p, 75Ω |
| S-VIDEO IN: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |
| AUDIO IN CH-1/2: | XLR 3-pin female, 4dBu, 600Ω/10kΩ selectable balanced |

**Signal outputs**

| | |
|---|---|
| VIDEO OUT 1: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT 2: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion |
| RGB/COMPONENT OUT: | BNC (×3)*3,<br>Y/Sync on G: 1.0Vp-p, 75Ω, sync negative<br>G: 0.7Vp-p, 75Ω<br>R-Y/R: 0.7Vp-p, 75Ω<br>B-Y/B: 0.7Vp-p, 75Ω |
| RGB SYNC OUT: | 2Vp-p, 75Ω, sync negative |
| S-VIDEO OUT: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |
| AUDIO LINE OUT CH-1/2: | XLR 3-pin, male, 4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT CH-1/2: | Phono, –6dBu |

**Others**

| | |
|---|---|
| REMOTE: | RS-232C 25-pin multi connector |
| REMOTE 2: | Stereo mini jack (for foot switch) |
| REMOTE OUT: | Stereo mini jack (for trigger to video printer) |
| CONTROL-S (SIRCS): | Stereo mini jack |
| HEADPHONES: | JM-60 headphone stereo jack |

---

*1 Without SVRM-100A attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
*2 Peak level: +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars

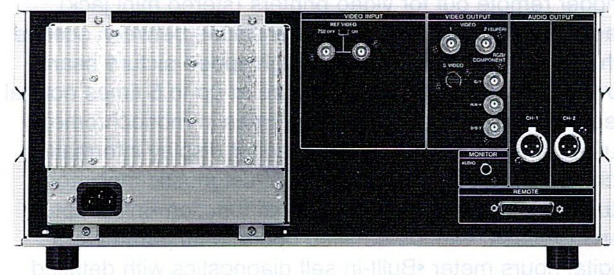
# 1-2 UVW series Betacam SP VTRs

## UVW-1200P

### Player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system •Dedicated longitudinal time code track •Built-in Time Base Stabilizer with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) reader •25-pin remote control interface complied with RS-232C interface for external computer operation •Y/R-Y/B-Y component signal outputs via BNC connectors are switchable to RGB output connector •S-video (Y/C separate) output connector •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Auto repeat function •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 17.5 kg/38 lb 9 oz), 19-inch rack mountable and low power consumption (63W)

SONY
POWER
00:00:00:00
EJECT
REW
PLAY
F FWD
STOP
HEADPHONES
CONTROL S
BETACAM SP
VIDEOCASSETTE PLAYER UVW-1200P



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operation manual<br>RS-232C Protocol manual |
| Optional accessories: | Component colour corrector BVX-10P<br>S-video cable SYC-2/5 (2 m/5 m)<br>Remote control unit DSRM-10<br>Rack mount unit RMM-130 |

### Specifications

**General**

| | |
|---|---|
| Type: | Player |
| Video recording system: | Rotary 4 head helical scan<br>Luminance: FM recording<br>Chrominance: FM recording (CTDM recording) |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC 198 to 264V, 48 to 64Hz |
| Power consumption: | 63W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Humidity: | Less than 80% (relative humidity) |
| Dimensions: | 427 (W) × 193 (H) × 474 (D) mm<br>($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches) |
| Mass: | Approx. 17.5 kg (38 lb 9 oz) |
| Tape speed: | 101.5 mm/s |
| Playback time: | More than 100min with UVWT-90MLA<br>More than 35min with UVWT-30MA |
| Fast forward time: | Less than 3min with UVWT-90MLA |
| Rewind time: | Less than 3min with UVWT-90MLA |
| Search speed (with optional DSRM-10)*1: | Shuttle: 15 steps, still to 16 times normal speed, forward and reverse<br>Jog: Frame by frame to ×2, forward and reverse |

**Video performance (Metal particle tape)**

| | |
|---|---|
| Bandwidth (50% modulation): | Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB<br>Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB |
| S/N ratio: | Luminance (Component out): More than 46dB<br>Chrominance (1.0MHz LPF):<br>AM; More than 48dB<br>PM; More than 48dB |
| K-factor (2T pulse): | Less than 3% |
| Y/C delay: | Less than 30ns |

**Audio performance (Metal particle tape)**

| | |
|---|---|
| Frequency responce: | 50Hz to 15kHz $^{+2.0}_{-3.0}$ dB<br>(20dB below peak level)*2 |
| S/N ratio: | More than 66dB<br>(at peak level weighed CCIR468-3)*2 |
| Distortion: | Less than 1.5%<br>(at 1kHz/at operational level 4dBu) |
| Wow and flutter: | Less than 0.15% rms (DIN 45507) |

**Signal inputs**

| | |
|---|---|
| REF VIDEO IN: | BNC, 1.0Vp-p, 75Ω |

**Signal outputs**

| | |
|---|---|
| VIDEO OUT 1: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative |
| VIDEO OUT 2: | BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion |
| RGB/COMPONENT OUT: | BNC (×3)*3,<br>Y/Sync on G: 1.0Vp-p, 75Ω, sync negative<br>R-Y/R: 0.7Vp-p, 75Ω<br>B-Y/B: 0.7Vp-p, 75Ω |
| AUDIO LINE OUT CH-1/2: | XLR 3-pin, male, 4dBu, 600Ω, balanced |
| AUDIO MONITOR OUT CH-1/2: | Phono, –6dBu |
| S-VIDEO OUT: | Mini DIN 4-pin,<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p (burst), 75Ω |

**Others**

| | |
|---|---|
| REMOTE: | RS-232C 25-pin multi connector |
| CONTROL-S (SIRCS): | Stereo mini jack |
| HEADPHONES: | JM-60 headphone stereo jack |

---

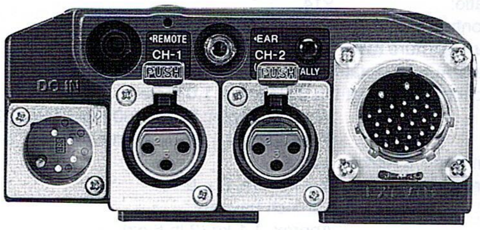
*1 Without DSRM-10 attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
*2 Peak level: +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars

## UVW-100BP

### Betacam SP One-Piece Camcorder

•High performance one-piece camcorder •Incorporates three 1/2-inch IT Power HAD sensors •High quality Betacam SP component recording format •High sensitivity of F11.0 at 2000 lx, high signal to noise ratio of 58dB, high horizontal resolution of 700TV lines •Compact and light weight approx. 7.3 kg including the viewfinder, battery, cassette and lens •Low power consumption of 20W •More than 35 minutes of recording time using the S-size metal Betacam SP cassette •Programmable gain up (0 to 18dB) •ATW (Auto Tracing White Balance) •Total Level Control System provides optimum adjustments for any lighting conditions: AGC (Automatic Gain Control), AE (Auto Exposure) and Intelligent Auto Iris •Built-in safety zone and centre marker generator in the viewfinder •Two memories for white balance value •×14 zoom lens: VCL-714BX (supplied with the UVW-100BPF/BPK) •1/2-inch bayonet mount •Variable electronic shutter •Clear Scan function (50.0 to 201.5Hz) •Camera gen-lock and Time Code gen-lock capability •The 26-pin interface provides component, composite and Y/C video signal to an external VTR for simultaneous recording •Built-in time code generator and reader •Real Time/Date recording function •Two longitudinal audio channels with the Dolby C-Type NR (Noise Reduction) system •Recording review and back space editing function •Colour playback in the field with the optional VA-300P Playback Adaptor •8-digit LCD display •Bargraph meter for audio level and battery status •Built-in earspeaker •External microphone power supply (+48V, Ch-1/2)

BETACAM SP
SONY
PowerHAD



| | |
|---|---|
| Optional accessories: | Battery pack NP-1B, BP-90A<br>Battery charger BC-1WDCE, BC-410CE<br>Battery adaptor DC-520, DC-500<br>AC adaptor AC-550CE<br>AC power adaptor CMA-8ACE<br>Playback adaptor VA-300P<br>Remote controller RM-81<br>Carrying case LC-421<br>Rain cover LCR-1<br>26/26-pin cable CCZ-A cable<br>14/26-pin cable CCZQ-A cable<br>Tripod adaptor VCT-U14 |
| Supplied accessories: | Tripod adaptor<br>External Microphone<br>Shoulder strap<br>Viewfinder<br>×14 zoom lens<br>Carring case<br>Operational manual |

## Specifications

**General**

| | |
|---|---|
| Type: | One-piece camcorder |
| Power requirements: | DC 12V $^{+5.0}_{-1.0}$ V |
| Power consumption: | 20W (at 12V, without viewfinder) |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Humidity: | Less than 85% (relative humidity) |
| Mass: | 7.3 kg (fully equipped with VF/lens/battery/MIC) |
| Tape speed: | 101.5 mm/s |
| Playback/recording time: | More than 35min with UVWT-30MA |
| Fast forward time: | Less than 7.5min with UVWT-30MA |
| Rewind time: | Less than 5.5min with UVWT-30MA |

**Camera Head**

| | |
|---|---|
| Image device: | Three 1/2-inch IT Power HAD CCD sensors |
| Optics: | F1.4 medium index prism system |
| Picture element: | Total: 795 × 596 (H × V)<br>Effective: 752 × 582 (H × V) |
| Built-in filters: | 1: 3200K<br>2: 5600K + 1/16ND<br>3: 5600K |
| Lens mount: | 1/2-inch bayonet |
| Video signal aystem: | PAL (colour) |
| Horizontal resolution: | 700TV lines |
| Minimum illumination: | 4.0 lx with F1.4 +18dB |
| Sensitivity: | F11.0 at 2000 lx |
| Gain selection: | 0dB<br>MID (1dB to 17dB in 1dB steps)<br>HIGH (2dB to 18dB in 1dB steps)<br>(MID < HIGH)<br>0dB to 18dB variable (AGC) |
| Shutter speed selection: | OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000s |
| Clear Scan range: | 50.0Hz to 201.5 Hz |
| S/N ratio: | 58dB |
| Registration: | 0.05% (all zone, without lens) |
| Geometric distortion: | Below measurable level |
| Camera: | VBS: 1.0Vp-p, sync negative |
| 26-pin connector: | VBS: 1.0Vp-p, sync negative<br>Y: 1.0Vp-p, 75Ω, sync negative<br>R-Y/B-Y: 0.525Vp-p<br>Y/C: {Y}; 1.0Vp-p, 75Ω, sync negative<br>{C}; 0.3Vp-p (burst level) |

**VTR Portion**

| | |
|---|---|
| Video | |
| Recording system: | Rotary 4-head helical scan system<br>R-Y/B-Y: FM recording (CTDM)<br>Y: FM recording |
| Time Code IN (BNC): | 0.5V to 5Vp-p, 10kΩ |
| Time Code OUT (BNC): | 1.0Vp-p, 75Ω |
| Audio | |
| Input: | MIC: –60dBu, 3kΩ, balanced<br>Line: +4dBu, 10kΩ, balanced |
| Video Performance | |
| Bandwidth: | Y: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB<br>R-Y/B-Y: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB |
| S/N ratio: | Y (Component IN/OUT): More than 46dB<br>R-Y/B-Y: More than 47dB |
| Distortion: | K-factor: Less than 3%<br>Y/C delay: Less than 30ns |
| Audio Performance | |
| Frequency response (20dB below peak level): | 50Hz to 12.5kHz $^{+2.0}_{-3.0}$ dB |
| S/N ratio (at peak level* CCIR 468-3): | More than 60dB |
| Distortion (at 1kHz, operational level (+4dBu)): | Less than 1.5% |
| Wow and flutter: | Less than 0.18%rms |

**Connectors**

| | |
|---|---|
| Playback adapter: | 20-pin |
| External VTR Connector: | 26-pin |
| Camera Video OUT: | BNC (×2) |
| Camera GEN LOCK IN: | BNC |
| Camera MIC IN: | XLR (3-pin) with 48V OUT |
| Audio IN: | XLR (×2) (3-pin) with 48V OUT selectable |
| Headphone OUT: | Stereo mini jack |
| Remote: | Stereo mini jack |
| Lens: | 12-pin (for $^{2}/_{3}$-inch lens) |
| DC IN: | XLR 4-pin (for the optional CMA-8ACE) |
| Time Code IN: | BNC |
| Time Code OUT: | BNC |

**Viewfinder (DXF-601CE)**

| | |
|---|---|
| Picture tube: | 1.5-inch monochrome |
| Indicators: | REC/TALLY/BATT/SHUTTER/GAIN UP by LED |
| Resolution: | 600TV lines |
| Power requirements: | DC 12V |
| Power consumption: | 2.1W |
| Mass: | 600 g (1 lb 5 oz) |
| Dimensions: | Approx. 182(W) × 68(H) × 250(D) mm<br>($7^{1}/_{4} \times 2^{3}/_{4} \times 8^{1}/_{8}$ inches) |

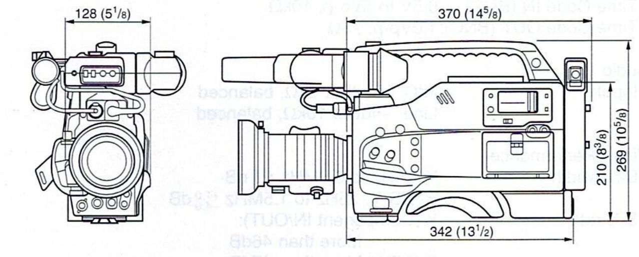
**Zoom Lens (VCL-714BX)**

| | |
|---|---|
| Focal length: | 7.5 to 97.5 mm |
| Zoom ratio: | ×14 |
| Zoom control: | Manual/Motorized |
| Maximum aperture ratio: | 1:1.4 |
| Iris control/Auto selectable: | F1.4 to F16 and C (close) |
| Range of object field (at the distance of 1.0 meter): | |
| | W (wide angle): 880 × 660 mm ($34^{3}/_{4} \times 26$ inches) |
| | T (telephoto): 63 × 47 mm ($2^{1}/_{2} \times 1^{7}/_{8}$ inches) |
| Minimum object distance: | 1.0 m |
| Filter thread: | ø = 72 mm, P = 0.75 |
| Mount: | 1/2-inch bayonet |
| Mass: | Approx. 1.1 kg (2 lb 6 oz) |
| Dimensions (ø × L): | Approx. 110 × 186 mm<br>($4^{3}/_{8} \times 7^{3}/_{8}$ inches) |

**Component Chart**

| | UVW-100BPF | UVW-100BPK | UVW-100BPL |
|---|---|---|---|
| Camcorder UVW-100BP | Yes | Yes | Yes |
| External microphone | Yes | Yes | Yes |
| Shoulder strap | Yes | Yes | Yes |
| Tripod adapter VCT-U14 | Yes | Yes | Yes |
| Viewfinder DXF-601CE | Yes | Yes | Yes |
| Zoom lens VCL-714BX | Yes | Yes | Option |
| Carring case LC-421 | Yes | Option | Option |

Dimensions



Unit: mm (inch)

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* Peak level = +8dB above operational level.

# 1-3 Betacam SP accessories

## UVR-60P

### TBC Remote controller

- Designed to control the Betacam SP studio VTR/DSR-85P/DSR-80P/DSR-60P/EVO-9850P/SVO-5800P/SVP-5600P built-in TBCs
- 19-inch rack mountable: Can be installed individually with the supplied blank panel or with another UVR-60P

Power requirements:
DC 12V, 9V (supplied from VTR)
Power consumption:
840 mmW
Mass: 1.3 kg (2 lb 13 oz)
Dimension: 215 (W) × 44 (H) × 101 (D) mm
($8^{1}/_{2}$ × $1^{3}/_{4}$ × 4 inches)

Supplied accessories:
Remote control cable (5 m)
Rack mount bracket
Blank panel
Screw
Operation manual

SONY
PRESET
NOISE REDUCTION
FREEZE
VIDEO
CHROMA
BLACK LEVEL
BURST/CHROMA
Y/C DELAY
SYNC PHASE
SC PHASE
REMOTE CONTROL UNIT UVR-60P

---

## BVX-10P

### Component colour corrector

- Component signal colour corrector for Betacam VTR
- Preset/manual control of Gain, Black level and Gamma on R, G, B signals
- Easy connection—12-pin multi cables for component input and output, BNC connectors for component input and output (Y, B-Y, R-Y)
- Remote controller supplied (BVR-58)
- 19-inch rack mountable

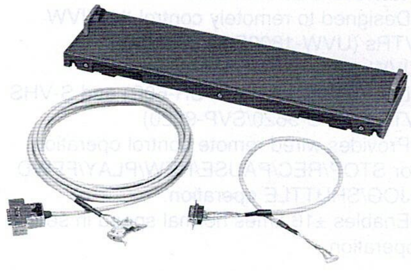
Power requirements:
AC 198 to 264V, 50/60Hz
Power consumption: 40W
Mass: Main unit: 6.1 kg (13 lb 7 oz)
Remote controller:
0.9 kg (1 lb 15 oz)
Dimensions: Main unit:
424 (W) × 44 (H) × 410 (D) mm
($16^{3}/_{4}$ × $1^{3}/_{4}$ × $16^{1}/_{4}$ inches)
Remote controller:
212 (W) × 44 (H) × 110 (D) mm
($8^{3}/_{4}$ × $1^{3}/_{4}$ × $4^{3}/_{8}$ inches)
Supplied accessories:
Rack mount units (2)
Remote control cable
(5 m, 25-pin)
Operation and maintenance manual

---

## BKW-2010

### Control panel extension kit

- Designed to remotely control the PVW-2800P/2650P/2600P
- Composition—Blank panel (1), 15-pin remote control cable (1), Cable for the internal circuits (1)



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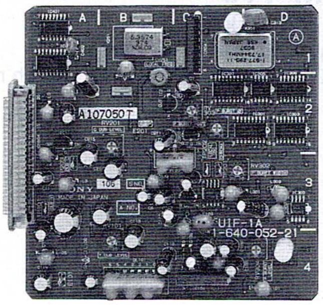
## BKW-2030

### U-matic DUB output kit

- Enables transformation of Betacam SP material from a PVW VTR to a U-matic VTR

Dimension: 100 (W) × 104 (H) × 15 (D) mm
(4 × $4^{1}/_{8}$ × $^{9}/_{32}$ inches)
Mass: 70 g (2.5 oz)

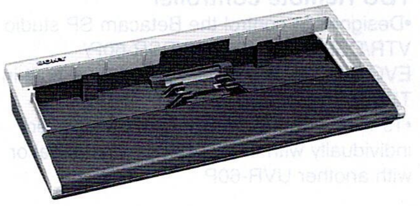

A
B
C
A107050T
SONY
UIF-1A
1-640-052-21
1
2
3
4

## BK-803

**Control panel case**

- Mounts the control panel which is removed from PVW-2800P/2650P/2600P
- Used with BKW-2010

Dimension: 448 (W) × 56.5 (H) × 218 (D) mm (17¾ × 2¼ × 8⅝ inches)



---

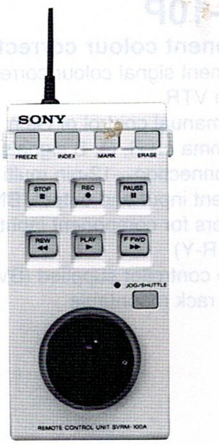
## SVRM-100A

**Remote control unit**

- Designed to remotely control the UVW-1700GP and UVW-1400AP
- Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
- JOG/SHUTTLE operation •Enables ±16 times normal speed in search operation

**Specifications**

| | |
|---|---|
| Power requirements: | DC 5V (supplied from the VTR) |
| Power consumption: | 40 mW |
| Remote control: | Stereo mini plug |
| Control signal: | Control S |
| Dimensions: | 90 (W) × 39 (H) × 182 (D) mm<br>(3⅝ × 1 9/16 × 7¼ inches) |
| Mass: | 250 g (8.8 lb) |


SONY
FREEZE
INDEX
MARK
ERASE
STOP
REC
PAUSE
REW
PLAY
F FWD
JOG/SHUTTLE
REMOTE CONTROL UNIT SVRM-100A

---

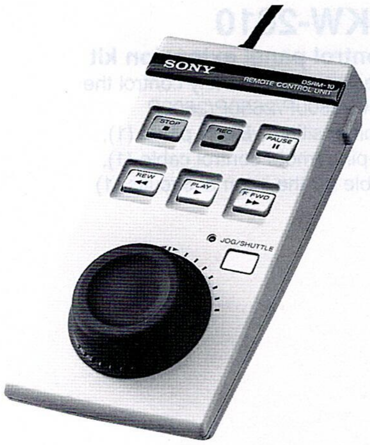
## DSRM-10

**Remote Control Unit**

- Designed to remotely control the UVW VTRs (UVW-1800P/UVW-1600P/UVW-1200P), DVCAM VTRs (DSR-85P/DSR-80P/DSR-60P) and S-VHS VTRs (SVO-9620/SVP-9020)
- Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
- JOG/SHUTTLE operation
- Enables ±16 times normal speed in search operation

**Specifications**

| | |
|---|---|
| Power requirements: | DV 5V (supplied from the connected VTR) |
| Power consumption: | 50 mW |
| Remote control: | Stereo mini-plug (with attached cable, length 3 m (10ft)) |
| Dimensions: | 90 (W) × 46 (H) × 182 (D) mm<br>(3⅝ × 1 13/16 × 7¼ inches) |
| Mass: | Approx. 360 g (12oz) |
| Supplied accessory: | Operating instructions |

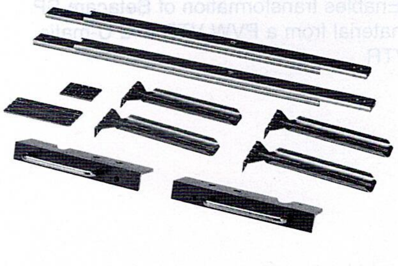

SONY
DSRM-10
REMOTE CONTROL UNIT
STOP
REC
PAUSE
REW
PLAY
F FWD
JOG/SHUTTLE

---

## RMM-110

**Rack mount kit**

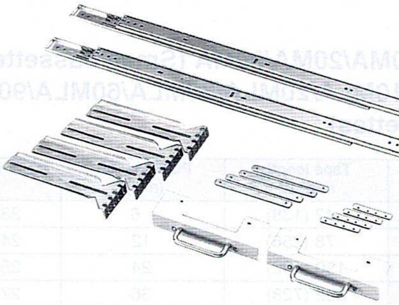
- Designed for use in mounting PVW-2800P/2650P/2600P into 19-inch rack



## RMM-130

**Rack mount kit**

- Designed for use in mounting UVW1800P/1700GP/1600P/1400AP/1200P into 19-inch rack



---

## AC-550CE

**AC Adaptor**

- Supplies DC power to the UVW-100BP one-piece camcorder and a portable VTR through the 26-pin (CCZ-type) camera connector or the XLR 4-pin DC OUT connector

Supplied accessories:
AC power cord
DC power cord
Operation and Maintenance manual

Power requirements: AC 110 to 120V/220 to 240V ±10% selectable, 50Hz
Power consumption: Max 130W
DC output: 13.5V, 7A
Input/Output connectors:
CAMERA: CCZ-type 26-pin
VIDEO OUT: BNC type
MIC OUT: Equivalent to XLR-3-31
DC OUT: Equivalent to XLR-4-31
EXT VBS: BNC type
Dimensions: 217 (W) × 91 (H) × 327 (D) mm ($8\frac{5}{8} \times 3\frac{5}{8} \times 12\frac{7}{8}$ inches)
Mass: 3.8 kg (8 lb 6 oz)

SONY
AC ADAPTOR
CAMERA
DC OUT
POWER

---

## VA-300P

**Playback Adaptor**

- Provides full colour replay from UVW-100BP, PVV-3P
- Single 20-pin multicable connection to recorder
- 2m cable supplied with VA-300P
- Composite and Y/C video signal output
- Two channel audio replay
- Provided with digital component TBS (Time Base Stabilizer) with high quality digital dropout compensation
- External SYNC lock capability

Power requirements: DC $12V^{+5.0}_{-1.5}V$
Power consumption: 11W
Mass: Approx. 1.6 kg (3 lb 8 oz)
Dimensions: 212 (W) × 88 (H) × 222 (D) mm ($8\frac{3}{8} \times 3\frac{1}{2} \times 8\frac{3}{4}$ inches)
Supplied accessories:
Connecting cable (2 m, 20-pin)
Operation manual

SONY
POWER
HEADPHONES
MONITOR SELECT
DOLBY NR
VTR PLAYBACK ADAPTOR VA-300P

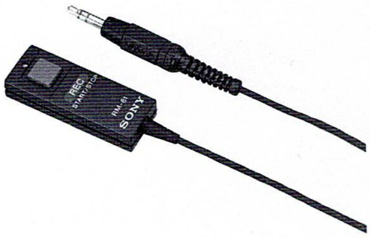
---

## RM-81

**Remote control unit**

- To START/STOP the recording mode of the UVW-100BP Betacam SP one-piece camcorder

Connector: Stereo mini
Cable length: 5 m



## BCT MA series metal videocassette tapes

### BCT-5MA/10MA/20MA/30MA (Small cassettes)
### BCT-5MLA/10MLA/20MLA/30MLA/60MLA/90MLA (Large cassettes)

| Model | Tape length m (feet) | Playing time (min) | Mass* g (lb.) |
|---|---|---|---|
| BCT-5MA | 42 (138) | 6 | 231 (0.47) |
| BCT-10MA | 78 (256) | 12 | 241 (0.49) |
| BCT-20MA | 150 (492) | 24 | 256 (0.52) |
| BCT-30MA | 222 (728) | 36 | 276 (0.56) |
| BCT-5MLA | 58 (190) | 9 | 625 (1.38) |
| BCT-10MLA | 93 (305) | 15 | 630 (1.39) |
| BCT-20MLA | 172 (564) | 29 | 650 (1.43) |
| BCT-30MLA | 243 (797) | 39 | 660 (1.46) |
| BCT-60MLA | 457 (1,499) | 75 | 730 (1.61) |
| BCT-90MLA | 670 (2,198) | 110 | 790 (1.74) |

*With case

- For Betacam SP 2000 PRO VTRs PVW-2800P/2650P/2600P, PVV-3P and BVW series Betacam SP VTRs
- The highest possible picture can be reproduced.

SONY
BCT-5MA
BCT-10MA
BCT-20MA
BCT-60MLA
BCT-90MLA
ANTI-STATIC
BETACAM SP

## UVWT series metal videocassette tapes

### UVWT–10MA/20MA/30MA (Small cassettes)
### UVWT–60MLA/90MLA (Large cassettes)

| Model | Tape length m (feet) | Playing time (min) | Mass* g (lb.) |
|---|---|---|---|
| UVWT-10MA | 78 (256) | 12 | 241 (0.49) |
| UVWT-20MA | 150 (492) | 24 | 256 (0.52) |
| UVWT-30MA | 222 (728) | 36 | 276 (0.56) |
| UVWT-60MLA | 457 (1,499) | 75 | 730 (1.61) |
| UVWT-90MLA | 670 (2,198) | 110 | 790 (1.74) |

*With case

- Metal particle tape for UVW series VTRs UVW-1800P/1700GP/1600P/1400AP/1200P

SONY
10
20
30
60
90
UVWT-10MA
UVWT-60MLA
Perfect Choice for UVW VTR Series

## DSR-85P

### Digital Videocassette Recorder

•Superb picture quality inherent in the DVCAM digital component recording format •A maximum 184 minutes of recording/playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital audio recording for both two channel (48kHz/16-bit) and four channel (32kHz/12-bit) modes (selectable) •High speed (×4) data transfer capability via the QSDI interface when incorporated in a system with Sony ES-7 EditStation system •The newly developed QSDI digital interface allows degradation-free transfer of both video and audio signals •ClipLink operation •High speed tape dubbing with ClipLink Log Data •Extensive analogue interfaces including composite, component, and S-Video •Remote control via RS-422A •Built-in EBU time code generator/ reader •Time base corrector •Digital slow function (0 to ±1/5) •Frame accurate editing capability •High speed picture search (× ±32) •Jog audio (× ±1/30 to 1) •SDI (Serial Digital Interface) with an optional DSBK-120P SDI Input/Output Board •AES/EBU digital audio •Built-in character generator •Highly legible front panel display • Consumer DV playback capability without need for a special adaptor •Both standard and mini size cassettes are available without need for a special adaptor •Quick responsive mechanism •Built-in self-diagnostics and an error log function •Hours meter •Four units (4U) high, EIA standard 19-inch rack mountable

| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operating instructions<br>ClipLink Guide<br>RCC-5G Remote Control Cable |
| Optional accessories: | SDI Input/Output Board DSBK-120P<br>Time Code Input/Output Board DSBK-130P<br>Remote Control Unit DSRM-10<br>Rack Mount Kit RMM-130<br>TBC Remote Control Unit UVR-60P<br>Remote Control Cable RCC-5G/10G/30G<br>(5 m/10 m/30 m) |

## Specifications

**General**

| | |
|---|---|
| Type: | High speed editing recorder/player |
| Video recording system: | Rotary 14 head helical scan<br>Luminance : FM recording<br>Chrominance : FM recording |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC220 to 240V, 50/60Hz |
| Power consumption: | 185W |
| Operating temperature: | 5°C to 40°C (41°F to 104°F) |
| Storage temperature: | –20°C to 60°C (–4°F to 140°F) |
| Operating humidity: | Less than 80% |
| Storage humidity: | Less than 90% |
| Mass: | 21 kg (46 lb 4 oz) |
| Dimensions: | 427 (W) × 174 (H) × 494 (D) mm<br>(16⅞ × 6⅞ × 19½ inches)<br>excluding external projections |
| Tape speed: | 28.221 mm/s |
| Recording/Playback time: | |
| Standard size | More than 184min. w/PDV-184ME |
| Mini size | More than 40min. w/PDVM-40ME |
| Fast forward/Rewind time: | |
| Standard size | Less than 3min. w/PDV-184ME |
| Mini size | Less than 1min. w/PDVM-40ME |
| Search speed: | |
| When controlling via RS-422A | Search speed is up to 32 times forward and reverse |
| When cotrolling via DSRM-10: | |
| Jog mode | Frame by frame to ×2, forward and reverse |
| Shuttle mode | 8 steps, still to ×16 normal speed, forward and reverse |
| Digital slow mode | 3 steps, still, ×1/5 and ×1/10 normal speed, forward and reverse |
| Jog audio mode | ×1/30 to ×1, forward and reverse |

**Video Performance**

| | |
|---|---|
| Band width (via analogue component I/O): | |
| Luminance | 25Hz ~ 5.5MHz +1.0/–2.0dB<br>5.75MHz +0/–3.0dB (Typical measurement) |
| Chrominance | 25Hz ~ 2.0MHz +1.0/–2.0dB |
| S/N ratio (via analogue component I/O): | More than 55dB |
| K-factor (K2T, KPB): | Less than 2.0% |
| Y/C delay: | Less than 30ns |

**Audio Performance**

| | |
|---|---|
| Frequency response | |
| 2CH mode (48kHz/16-bit): | 20Hz ~ 20kHz +0.5/–1.0dB |
| 4CH mode (32kHz/12-bit): | 20Hz ~ 14.5kHz +0.5/–1.0dB |
| Dynamic range: | More than 85dB |
| Distortion (THD+N): | Less than 0.05% |

**Signal Inputs**

**Video**

| | |
|---|---|
| REF.VIDEO (BNC ×2, loop-through connection): | Composite, 1.0Vp-p, 75Ω, sync negative |
| VIDEO (BNC ×2, loop-through connection): | Composite, 1.0Vp-p, 75Ω, sync negative |
| COMPONENT (BNC ×3): | Luminance : 1.0Vp-p, 75Ω, sync negative<br>Chrominance : 0.7Vp-p, 75Ω |
| S-Video (DIN 4-pin): | Y : 1.0Vp-p, 75Ω, sync negative<br>C : 0.3Vp-p, 75Ω (at burst level) |
| SDI*1 (BNC ×2, active-through connection): | Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656 |
| QSDI (BNC ×1): | Conforms to QSDI format (270Mbps) |

**Audio**

| | |
|---|---|
| AUDIO (XLR 3-pin female ×4): | –9dBu to 28dBu, 600Ω/10kΩ, balanced |
| AES/EBU (XLR 3-pin female ×2): | 110Ω, balanced |

**Signal Outputs**

**Video**

| | |
|---|---|
| REF.VIDEO (BNC ×1): | 0.3Vp-p, 75Ω, sync negative |
| VIDEO 1/2 (SUPER) (BNC ×2): | Composite, 1.0Vp-p, 75Ω, sync negative |
| COMPONENT (BNC ×3): | Luminance : 1.0Vp-p, 75Ω, sync negative<br>Chrominance : 0.7Vp-p, 75Ω |
| S-Video (DIN 4-pin): | Y : 1.0Vp-p, 75Ω, sync negative<br>C : 0.3Vp-p, 75Ω (at burst level) |
| SDI*1 (BNC ×2): | Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656 |
| QSDI (BNC ×1): | Conforms to QSDI format (270Mbps) |

**Audio**

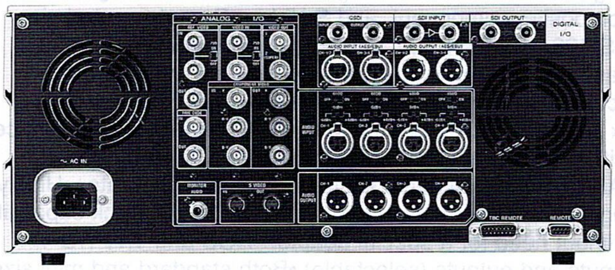
| | |
|---|---|
| AUDIO (XLR 3-pin male ×4): | 4dBu, 600Ω loading, low impedance, balanced |
| AUDIO MONITOR (RCA phono jack ×1): | –6dBu, 47kΩ, unbalanced |
| HEADPHONES (JM-60 headphone jack ×1): | –16dBu, 8Ω, unbalanced |
| AES/EBU (XLR 3-pin male ×2): | 2 to 7Vp-p, 110Ω, balanced |

**Time Code Input/Output*2**

| | |
|---|---|
| Time Code In (BNC ×1): | 0.5Vp-p to 18Vp-p, 3kΩ, unbalanced |
| Time Code Out (BNC ×1): | 2.2Vp-p, 600Ω, unbalanced |

**Remote**

| | |
|---|---|
| RS-422A: | 9-pin multi connector (×1) |
| TBC: | 15-pin connector (×1) |
| CONTROL-S (SIRCS): | Stereo mini jack (×1) |



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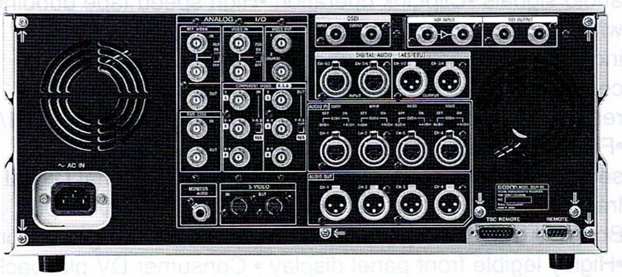
*1 Using optional DSBK-120P (SDI Input/Output Board)
*2 Using optional DSBK-130P (Time Code Input/Output Board)

## DSR-80P

### Digital Videocassette Recorder

•Superb picture quality inherent in the DVCAM digital component recording format •A maximum 184 minutes of recording/playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital audio recording for both two channel (48kHz/16-bit) and four channel (32kHz/12-bit) modes (selectable) •The newly developed QSDI digital interface allows degradation-free transfer of both video and audio signals •ClipLink operation •Full tape dubbing with ClipLink Log Data •Extensive analogue interfaces including composite, component, and S-Video •Remote control via RS-422A •Built-in EBU time code generator/reader •Time base corrector •Digital slow function (0 to ±1/5) •Frame accurate editing capability •High speed picture search (× ±32) •Jog audio (× ±1/30 to 1) •SDI (Serial Digital Interface) with an optional DSBK-120P SDI Input/Output Board •AES/EBU digital audio •Built-in character generator •Highly legible front panel display •Consumer DV playback capability without need for a special adaptor •RGB and Y/R-Y/B-Y inputs and outputs (selectable) •Both standard and mini size cassettes are available without need for a special adaptor •Quick responsive mechanism •Built-in self-diagnostics and an error log function •Hours meter •Four units (4U) high, EIA standard 19-inch rack mountable



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operating instructions<br>ClipLink Guide<br>RCC-5G Remote Control Cable |
| Optional accessories: | SDI Input/Output Board DSBK-120P<br>Time Code Input/Output Board DSBK-130P<br>Remote Control Unit DSRM-10<br>Rack Mount Kit RMM-130<br>TBC Remote Control Unit UVR-60P<br>Remote Control Cable RCC-5G/10G/30G<br>(5 m/10 m/30 m) |

## Specifications

**General**

| | |
|---|---|
| Type: | Editing recorder/player |
| Video recording system: | Rotary 6 head helical scan<br>Luminance : FM recording<br>Chrominance : FM recording |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC220 to 240V, 50/60Hz |
| Power consumption: | 145W |
| Operating temperature: | 5˚C to 40˚C (41˚F to 104˚F) |
| Storage temperature: | –20˚C to 60˚C (–4˚F to 140˚F) |
| Operating humidity: | Less than 80% |
| Storage humidity: | Less than 90% |
| Mass: | 19 kg (41 lb 14 oz) |
| Dimensions: | 427 (W) × 174 (H) × 494 (D) mm<br>(16⅞ × 6⅞ × 19½ inches)<br>excluding external projections |
| Tape speed: | 28.221 mm/s |
| Recording/Playback time: | |
| Standard size | More than 184min. w/PDV-184ME |
| Mini size | More than 40min. w/PDVM-40ME |
| Fast forward/Rewind time: | |
| Standard size | Less than 3min. w/PDV-184ME |
| Mini size | Less than 1min. w/PDVM-40ME |
| Search speed: | |
| When controlling via RS-422A | Search speed is up to 32 times forward and reverse |
| When cotrolling via DSRM-10 | |
| Jog mode | Frame by frame to ×2, forward and reverse |
| Shuttle mode | 8 steps, still to ×16 normal speed, forward and reverse |
| Digital slow mode | 3 steps, still, ×1/5 and ×1/10 normal speed, forward and reverse |
| Jog audio mode | ×1/30 to ×1, forward and reverse |

**Video Performance**

| | |
|---|---|
| Band width (via analogue component I/O): | |
| Luminance | 25Hz ~ 5.5MHz +1.0/–2.0dB<br>5.75MHz +0/-3.0dB (Typical measurement) |
| Chrominance | 25Hz ~ 2.0MHz +1.0/–2.0dB |
| S/N ratio (via analogue component I/O): | More than 55dB |
| K-factor (K2T, KPB): | Less than 2.0% |
| Y/C delay: | Less than 30ns |

**Audio Performance**

| | |
|---|---|
| Frequency response: | |
| 2CH mode (48kHz/16-bit): | 20Hz ~ 20kHz +0.5/–1.0dB |
| 4CH mode (32kHz/12-bit): | 20Hz ~ 14.5kHz +0.5/–1.0dB |
| Dynamic range: | More than 85dB |
| Distortion (THD+N): | Less than 0.05% |

**Signal Inputs**

**Video**

| | |
|---|---|
| REF.VIDEO (BNC ×2, loop-through connection): | Composite, 1.0Vp-p, 75Ω, sync negative |
| VIDEO (BNC ×2, loop-through connection): | Composite, 1.0Vp-p, 75Ω, sync negative |
| RGB/COMPONENT (BNC ×3) (selectable): | Y/R-Y/B-Y: Y : 1.0Vp-p, 75Ω, sync negative<br>R-Y/B-Y: 0.7Vp-p, 75Ω (75%)<br>R.G (w/o sync).B : 0.7Vp-p, 75Ω<br>G (w/sync) : 1.0Vp-p, 75Ω, sync negative |
| S-Video (DIN 4-pin): | Y : 1.0Vp-p, 75Ω, sync negative<br>C : 0.3Vp-p, 75Ω (at burst level) |
| SDI*1 (BNC ×2, active-through connection): | Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656 |
| QSDI (BNC ×1) | Conforms to QSDI format (270Mbps) |

**Audio**

| | |
|---|---|
| AUDIO (XLR 3-pin female ×4): | –9dBu to 28dBu, 600Ω/10kΩ, balanced |
| AES/EBU (XLR 3-pin female ×2): | 110Ω, balanced |

**Signal Outputs**

**Video**

| | |
|---|---|
| REF.VIDEO (BNC ×1): | |
| Black burst | 0.3Vp-p, 75Ω, sync negative |
| Composite sync* | 2.0Vp-p, 75Ω, sync negative<br>* when not adding sync to RGB output |
| VIDEO 1/2 (SUPER) (BNC ×2): | Composite, 1.0Vp-p, 75Ω, sync negative |
| RGB/COMPONENT (BNC ×3) (selectable): | Y/R-Y/B-Y : Y : 1.0Vp-p, 75Ω, sync negative<br>R-Y/B-Y : 0.7Vp-p, 75Ω (75%)<br>R.G (w/o sync).B : 0.7Vp-p, 75Ω<br>G (w/sync) : 1.0Vp-p, 75Ω, sync negative |
| S-Video (DIN 4-pin): | Y : 1.0Vp-p, 75Ω, sync negative<br>C : 0.3Vp-p, 75Ω (at burst level) |
| SDI*1 (BNC ×2): | Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656 |
| QSDI (BNC ×1): | Conforms to QSDI format (270Mbps) |

**Audio**

| | |
|---|---|
| AUDIO (XLR 3-pin male ×4): | 4dBu, 600Ω loading, low impedance, balanced |
| AUDIO MONITOR (RCA phono jack ×1): | –6dBu, 47kΩ, unbalanced |
| HEADPHONES (JM-60 headphone jack ×1): | –16dBu, 8Ω, unbalanced |
| AES/EBU (XLR 3-pin male ×2): | 2 to 7Vp-p, 110Ω, balanced |

**Time Code Input/Output*2**

| | |
|---|---|
| Time Code In (BNC ×1): | 0.5Vp-p to 18Vp-p, 3kΩ, unbalanced |
| Time Code Out (BNC ×1): | 2.2Vp-p, 600Ω, unbalanced |

**Remote**

| | |
|---|---|
| RS-422A: | 9-pin multi connector (×1) |
| TBC: | 15-pin connector (×1) |
| CONTROL-S (SIRCS): | Stereo mini jack (×1) |

*1 Using optional DSBK-120P (SDI Input/Output Board)
*2 Using optional DSBK-130P (Time Code Input/Output Board)

## DSR-60P

### Digital Videocassette Player

•Superb picture quality inherent in the DVCAM digital component recording format •A maximum 184 minutes of playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital audio recording for both two channel (48kHz/16-bit) and four channel (32kHz/12-bit) modes (selectable) •QSDI interface with an optional DSBK-110P QSDI Output Board •ClipLink operation •Extensive analogue interfaces including composite, component, and S-Video •Remote control via RS-422A •Built-in EBU time code reader •Time base corrector •Digital slow function (0 to ±1/5) •Frame accurate editing capability •High speed picture search (× ±32) •Jog audio (× ±1/30 to 1) •SDI (Serial Digital Interface) with an optional DSBK-100P SDI Output Board •Built-in character generator •Highly legible front panel display •Consumer DV playback capability without need for a special adaptor •Auto repeat/power-on playback function •RGB and Y/R-Y/B-Y outputs (selectable) •Both standard and mini size cassettes are available without need for a special adaptor •Quick responsive mechanism •Built-in self-diagnostics and an error log function •Hours meter •Four units (4U) high, EIA standard 19-inch rack mountable

SONY
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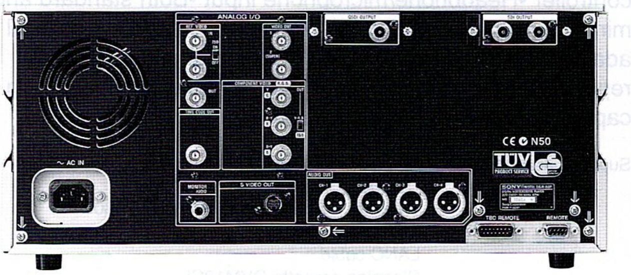
DVCAM
DIGITAL VIDEOCASSETTE PLAYER DSR-60P



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operating instructions<br>ClipLink Guide<br>RCC-5G Remote Control Cable |
| Optional accessories: | SDI Output Board DSBK-100P<br>QSDI Output Board DSBK-110P<br>Time Code Input/Output Board DSBK-130P (Output only)<br>Remote Control Unit DSRM-10<br>Rack Mount Kit RMM-130<br>TBC Remote Control Unit UVR-60P<br>Remote Control Cable RCC-5G/10G/30G (5 m/10 m/30 m) |

## Specifications

**General**

| | |
|---|---|
| Type: | Editing player |
| Video recording system: | Rotary 2 head helical scan<br>Luminance : FM recording<br>Chrominance : FM recording |
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC220 to 240V, 50/60Hz |
| Power consumption: | 87W |
| Operating temperature: | 5˚C to 40˚C (41˚F to 104˚F) |
| Storage temperature: | –20˚C to 60˚C (–4˚F to 140˚F) |
| Operating humidity: | Less than 80% |
| Storage humidity: | Less than 90% |
| Mass: | 18 kg (39 lb 10 oz) |
| Dimensions: | 427 (W) × 174 (H) × 494 (D) mm<br>(16⅞ × 6⅞ × 19½ inches)<br>excluding external projections |
| Tape speed: | 28.221 mm/s |
| Recording/Playback time: | |
| Standard size | More than 184min. w/PDV-184ME |
| Mini size | More than 40min. w/PDVM-40ME |
| Fast forward/Rewind time: | |
| Standard size | Less than 3min. w/PDV-184ME |
| Mini size | Less than 1min. w/PDVM-40ME |
| Search speed: | |
| When controlling via RS-422A | Search speed is up to 32 times forward and reverse |
| When cotrolling via DSRM-10 | |
| Jog mode | Frame by frame to ×2, forward and reverse |
| Shuttle mode | 8 steps, still to ×16 normal speed, forward and reverse |
| Digital slow mode | 3 steps, still, ×1/5 and ×1/10 normal speed, forward and reverse |
| Jog audio mode | ×1/30 to ×1, forward and reverse |

**Video Performance**

| | |
|---|---|
| Band width (via analogue component I/O): | |
| Luminance | 25Hz ~ 5.5MHz +1.0/–2.0dB<br>5.75MHz +0/–3.0dB (Typical measurement) |
| Chrominance | 25Hz ~ 2.0MHz +1.0/–2.0dB |
| S/N ratio (via analogue component I/O): | More than 55dB |
| K-factor (K2T, KPB): | Less than 2.0% |
| Y/C delay: | Less than 30ns |

**Audio Performance**

| | |
|---|---|
| Frequency response: | |
| 2CH mode (48kHz/16-bit) | 20Hz ~ 20kHz +0.5/–1.0dB |
| 4CH mode (32kHz/12-bit) | 20Hz ~ 14.5kHz +0.5/–1.0dB |
| Dynamic range: | More than 85dB |
| Distortion (THD+N): | Less than 0.05% |

**Signal Inputs**

**Video**

| | |
|---|---|
| REF.VIDEO (BNC ×2, loop-through connection): | Composite, 1.0Vp-p, 75Ω, sync negative |

**Signal Outputs**

**Video**

| | |
|---|---|
| REF.VIDEO (BNC ×1): | |
| Black burst | 0.3Vp-p, 75Ω, sync negative |
| Composite sync* | 2.0Vp-p, 75Ω, sync negative<br>* when not adding sync to RGB output |
| VIDEO 1/2 (SUPER) (BNC ×2): | Composite, 1.0Vp-p, 75Ω, sync negative |
| RGB/COMPONENT (BNC ×3) (selectable): | Y/R-Y/B-Y : Y : 1.0Vp-p, 75Ω, sync negative<br>R-Y/B-Y : 0.7Vp-p, 75Ω (75%)<br>R.G (w/o sync).B : 0.7Vp-p, 75Ω<br>G (w/sync) : 1.0Vp-p, 75Ω, sync negative |
| S-Video (DIN 4-pin): | Y : 1.0Vp-p, 75Ω, sync negative<br>C : 0.3Vp-p, 75Ω (at burst level) |
| SDI[1] (BNC ×2): | Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656 |
| QSDI[2] (BNC ×1): | Conforms to QSDI format (270Mbps) |

**Audio**

| | |
|---|---|
| AUDIO (XLR 3-pin male ×4): | 4dBu, 600Ω loading, low impedance, balanced |
| AUDIO MONITOR (RCA phono jack ×1): | –6dBu, 47kΩ, unbalanced |
| HEADPHONES (JM-60 headphone jack ×1): | –16dBu, 8Ω, unbalanced |

**Time Code Output**[3]

| | |
|---|---|
| Time Code Out (BNC ×1): | 2.2Vp-p, 600Ω, unbalanced |

**Remote**

| | |
|---|---|
| RS-422A: | 9-pin multi connector (×1) |
| TBC: | 15-pin connector (×1) |
| CONTROL-S (SIRCS): | Stereo mini jack (×1) |

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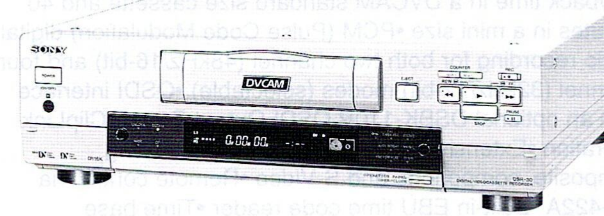
[1] Using optional DSBK-100P (SDI Output Board)
[2] Using optional DSBK-110P (QSDI Output Board)
[3] Using optional DSBK-130P (Time Code Input/Output Board)

## DSR-30P

### Digital Videocassette Recorder



•Superb picture quality inherent in the DVCAM digital component recording format •A maximum 184 minutes of recording/playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital audio recording for both two channel (48kHz/16-bit) and four channel (32kHz/12-bit) modes (selectable) •IEEE 1394-based DV IN/OUT connector*1 •LANC interface for remote control operation and LANC editing •External timer recording •Duplication mode with the original time code •Clear frame picture •Control tray with a jog (1/5 times normal speed) and shuttle (within 1/5 to 18 times normal speed) dial •Supplied wireless remote controller •Headphone/microphone input •Both standard and mini size cassettes are available without need for a special adaptor •Function lock to avoid accidental operation •Auto repeat/One programme play •Power-on playback/recording capability •Index/Photo/Date search functions

| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operating instructions<br>Wireless Remote Controller RMT-DS30<br>R6 batteries<br>LANC cable<br>Cleaning cassette DVM12CL |
| Optional accessories: | DV Cable VMC-2DV<br>Editing System FXE-120P<br>LANC Interface Box IF-FXE2 |

## Specifications

### General

| | |
|---|---|
| Video signal system: | CCIR monochrome/PAL colour |
| Power requirements: | AC220 to 240V, 50/60Hz |
| Power consumption: | 32W |
| Operating temperature: | 5˚C to 40˚C (41˚F to 104˚F) |
| Storage temperature: | –20˚C to 60˚C (–4˚F to 140˚F) |
| Mass: | Approx. 9.2 kg (20 lb 4 oz) |
| Dimensions: | 430 (W) × 129 (H) × 374 (D) mm<br>(17 × 5⅛ × 14¾ inches) |
| Tape speed: | 28.221 mm/s (DVCAM mode)<br>18.79 mm/s (DV playback mode) |
| Recording/Playback time: | |
| Standard size | More than 184min. w/PDV-184ME |
| Mini size | More than 40min. w/PDVM-40ME |
| Fast forward/Rewind time: | |
| Standard size | Less than 2min. w/PDV-184ME |
| Search speed: | –2, –1, –1/5, still, 1/5, 1, 2 times<br>Cue/Review (10 or 18 times) |

### Signal Inputs

**Video**

| | |
|---|---|
| Composite (BNC ×1, pin jack ×1): | 1.0Vp-p, 75Ω, sync negative |
| S-Video (DIN 4-pin ×2): | Y : 1.0Vp-p, 75Ω, sync negative, unbalanced<br>C : 0.3Vp-p (subcarrier burst), 75Ω, unbalanced |

**Audio**

| | |
|---|---|
| Audio (Phono jacks (stereo) rear ×1, front ×1): | Input level : 2Vrms (full bit) |

### Signal Outputs

**Video**

| | |
|---|---|
| Composite (BNC ×1, pin jack ×1): | 1.0Vp-p, 75Ω, sync negative |
| S-Video (DIN 4-pin ×2): | Y : 1.0Vp-p, 75Ω, sync negative, unbalanced<br>C : 0.3Vp-p (subcarrier burst), 75Ω, unbalanced |

**Audio**

| | |
|---|---|
| Audio (Phono jacks) (stereo): | Output level : 2Vrms (full bit) |

### Remote

| | |
|---|---|
| LANC: | Stereo mini jack (×1)<br>(front ×1, rear ×1, priority on the front) |
| CONTROL-S input: | Stereo mini jack (×1) |
| CONTROL-S output: | Stereo mini jack (×1) |

### Others

| | |
|---|---|
| DV IN/OUT: | DV type, 4-pin jack (×1) (IEEE 1394) |
| Headphone jack: | Stereo mini jack (×1) |
| Trigger input: | Phone jack (×1) (active short) |

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[1] A programme recorded on a consumer DV tape in the DV format cannot be copied to a DVCAM cassette tape in another DSR-30P via the DV interface.

## DSR-1P

### Digital Videocassette Recorder

•Superb picture quality inherent in the DVCAM digital component recording format •Dual interface mechanism - directly connected with both digital and analogue cameras due to incorporation of both Pro 76-pin Digital and analogue Pro 50-pin connectors (DXC-D30P, DXC-D30WSP, DXC-637P, DXC-537AP, DXC-537P, DXC-327AP and DXC-327BP) •Perfect camcorder operation by docking with the DXC-D30P Digital Camera to create the DSR-130P •Dual-size cassette mechanism allows both DVCAM standard cassette and mini cassette tapes to be used without any special adaptor •A maximum 184 minutes of recording/playback time in a DVCAM standard size cassette and 40 minutes in a mini size •PCM (Pulse Code Modulation) digital audio recording for both two channel (48kHz/16-bit) and four channel (32kHz/12-bit, only CH-1/CH-2) modes (selectable) •Compact and lightweight 2.85 kg (6 lb 4 oz including NP-1B battery) •Low power consumption: approx. 12W •Lightweight rugged magnesium diecast body and small drum mechanism •Full colour picture playback capability in the field without a playback adaptor •ClipLink operation •Camera setup data file system (w/DXC-D30P and DXC-D30WSP) •Time code display in playback (w/DXC-D30P and DXC-D30WSP) •Record review function •Viewfinder playback capability for field verification •Built-in EBU time code generator/reader •Time base stabilizer •Frame accurate back space editing •Built-in speaker •Selectable battery packs to extend operating time •Equipped with a DC out for the wireless microphone •Built-in external microphone power supply (+48V) •Easy integration with Anton/Bauer® equipment •Full range of controls are provided (Fast Forward/Rewind/Play/Stop/Eject) •Comprehensive 8-digit LCD •Easy menu selection on the LCD •Built-in self-diagnostics with character display on TV monitor •Digital hours meter

| | |
|---|---|
| Supplied accessories: | Shoulder strap |
| | Lithium-ion button cell (type CR2032) |
| | Operating instructions |
| | ClipLink Guide |
| | Connector cap |
| | M4 ×6 Screws (×2) |
| | M4 ×12 Screws (×2) |
| Optional accessories: | Rechargeable NiCd Battery NP-1B |
| | Rechargeable NiCd Battery BP-90A |
| | Rechargeable Lithium-ion Battery BP-L60/L90 |
| | Battery Case (for NP-1B) DC-520 |
| | Battery Case (for BP-90A) DC-500 |
| | Battery Case (for BP-90A, waist belt type) DC-210 |
| | Battery Adaptor (for BP-L60/L90) BKW-L601 |
| | Battery Charger (for NP-1B) BC-1WDCE |
| | Battery Charger (for BP-90A/NP-1B) BC-410CE |
| | Battery Charger (for BP-L60/L90) BC-L100CE |
| | AC Power Adaptor CMA-8ACE |
| | AC Power Adaptor AC-550CE |
| | Power Supply Cable (for CMA-8ACE) CCQX-3 |
| | Camera Adaptor (for BVP series) CA-514 |

### Specifications

**General**

| | |
|---|---|
| Type: | Dockable recorder unit |
| Power requirements: | DC12V, +5/-1V |
| Power consumption: | 12W (10W in recording mode w/DXC-D30P) |
| Operating temperature: | 0˚C to 40˚C (32˚F to 104˚F) |
| Storage temperature: | –20˚C to 60˚C (–4˚F to 140˚F) |
| Operating humidity: | Less than 85% |
| Storage humidity: | Less than 90% |
| Mass: | 2.85 kg (6 lb 4 oz) (including NP-1B Battery) |
| Dimensions: | 118 (W) × 185 (H) × 210 (D) mm<br>(4¾ × 7⅜ × 8⅜ inches) |
| Tape speed: | 28.221 mm/s |
| Recording/Playback time: | |
| Standard size | More than 184min. w/PDV-184ME |
| Mini size | More than 40min. w/PDVM-40ME |
| Fast forward/Rewind time: | |
| Standard size | Less than 12min. w/PDV-184ME |
| Mini size | Less than 3min. w/PDVM-40ME |
| Continuous recording time: | Approx. 60min. w/NP-1B (DSR-1P+DXC-D30P) |

**Video Performance**

| | |
|---|---|
| Band width: | |
| Luminance | 25Hz ~ 5.5MHz +1.0/–2.0dB<br>5.75MHz +0/–3.0dB (Typical measurement) |
| Chrominance | 25Hz ~ 2.0MHz +1.0/–2.0dB |
| S/N ratio: | More than 55dB |
| K-factor (K2T, KPB): | Less than 2.0% |
| Y/C delay: | Less than 30ns |

**Audio Performance**

| | |
|---|---|
| Frequency response: | |
| 2CH mode (48kHz/16-bit) | 20Hz ~ 20kHz +0.5/–1.0dB |
| 4CH mode (32kHz/12-bit) | 20Hz ~ 14.5kHz +0.5/–1.0dB |
| Dynamic range: | More than 80dB |
| Distortion (THD+N): | Less than 0.08% |

**Signal Inputs**

| | |
|---|---|
| GEN LOCK VIDEO IN (BNC): | 1.0Vp-p, 75Ω |
| EXT AUDIO IN CH-1/2 (XLR 3-pin female): | –60dBu, 3kΩ/+4dBu, 10kΩ |
| TIME CODE IN (BNC): | 0.5Vp-p to 18Vp-p, 10kΩ |

**Signal Outputs**

| | |
|---|---|
| VIDEO OUT (BNC): | 1.0Vp-p, 75Ω |
| S-VIDEO (DIN 4-pin): | Y : 1.0Vp-p, 75Ω, sync negative<br>C : 0.3Vp-p, 75Ω |
| AUDIO OUT CH-1/2 (RCA pin): | –10dBu, 47kΩ |
| TIME CODE OUT (BNC): | 1.0Vp-p, 75Ω |

**Others**

| | |
|---|---|
| ANALOGUE I/F: | Pro 50-pin (×1) |
| DIGITAL I/F: | Pro 76-pin Digital (×1) |
| DC 12V: | XLR 4-pin male (at rear) (×1) |
| DC OUT: | 4-pin (×1) |
| EARPHONE OUT: | Stereo mini jack (×1) |

* The specifications of "Video/Audio performance" were measured by playing back material on the DSR-85P (via analogue component out) that had been recorded on the DSR-1P.

## DSR-130P series

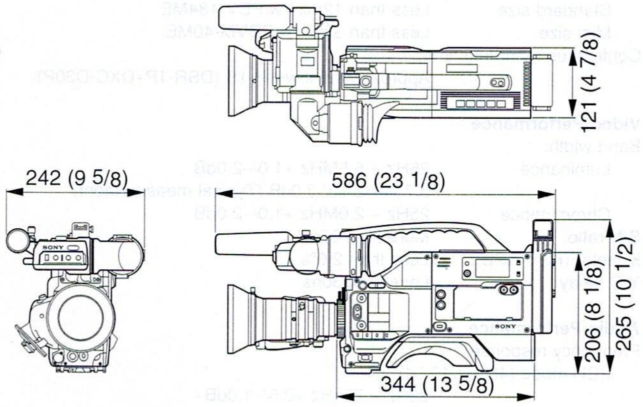
### DVCAM camcorder

•DVCAM digital camcorder with digital signal processing camera: DSR-1P docked with DXC-D30P via the Pro 76-pin connector •Status information and messages of the DSR-1P (time code, recording audio level, remaining battery power, remaining tape time, etc.) can be superimposed on the viewfinder •Time code superimposed during playback •Playback capability without an adaptor •Freeze mix function •ClipLink function •Compact and light weight 7.3 kg (16 lb 1 oz) in operation •Low power consumption: approx. 24.8 W •Lightweight rugged magnesium diecast body •Large carrying handle for enhanced transportability and easier handling in low angle

### Product Configurations

| | DSR-130PF | DSR-130PK | DSR-130PL |
|---|---|---|---|
| DXC-D30P Camera head | Yes | Yes | Yes |
| DSR-1P Recorder | Yes | Yes | Yes |
| Handle for DSR-130P | Yes | Yes | Yes |
| DXF-701CE Viewfinder | Yes | Yes | Yes |
| External microphone | Yes | Yes | Yes |
| Shoulder step | Yes | Yes | Yes |
| VCT-U14 Tripod adaptor | Yes | Yes | Yes |
| VCL-916BYA Zoom lens | Yes | Yes | Option |
| LC-421 Carrying case | Yes | Option | Option |

Dimensions



Unit: mm (inches)

# DSR-200P

## DVCAM Camcorder

•DVCAM recording/playback and consumer DV playback capability •Compact and lightweight (4.7 kg with 3 × NP-F930 and a tape) yet robust magnesium dicast body •Long Recording Time (184 minutes using PDV-184ME) •Long Operating Hours with Lithium Ion batteries, which have no memory effect (with 3 × NP-F930 in NPA-10000, 6 hours of continuous recording time) •3 CCD (1/3 inch) camera •Built-in lens with 10x zoom (10 times optical and 20 times digital) •DV OUT for digital dubbing •Optical Steady Shot for stable picture shooting without sacrificying picture resolutions. •Audio XLR connector for connecting professional microphones (mic/line selectable) •Audio mode 48kHz/16bit and 32kHz/12bit selectable •Audio dubbing capability (32kHz/12bit only) •1 inch black & white view finder (CRT) •Manual operation on iris/gain/shutter speed/white balance and auto lock function switch to make iris/gain/shutter speed/white balance automatic •AGC auto limitor at 9dB (on/off on menu) •Photo Mode and frame interpolation for recording clear frame picture for 7 seconds

| | |
|---|---|
| Supplied Accessories: | Wireless Remote Commander RMT-807<br>AV stereo cable<br>S cable<br>Lens cap<br>Clock Lithium Installed<br>R6 Batt ×2 (for Remote Commander)<br>Operation manual |

## Specifications

### GENERAL

| | |
|---|---|
| Power requirement: | DC 7.2V (battery operation)<br>DC 8.4V (AC adapter) |
| Power consumption: | 11.6W (in recording) |
| Dimensions: | 216 (W) × 236 (H) × 474 (D) mm<br>($8\frac{5}{8} \times 9\frac{3}{8} \times 18\frac{3}{4}$ inches) |
| Mass: | Approx. 3.6 kg (7 lb 15 oz)<br>(without a tape and batteries)<br>Approx. 4.7kg (10 lb 5 oz)<br>(with a tape, NPA-10000 and 3x NP-F930) |

### LENS

| | |
|---|---|
| Zoom: | 10x zoom (f= 5.9 to 59 mm)<br>(20× digital zoom) |
| Filter diameter: | 52 mm |
| Iris: | Auto/Manual (F1.6 to 11) and Close |

### CAMERA

| | |
|---|---|
| Image device: | 3-chip 1/3-inch, Interline-Transfer CCD |
| Picture elements: | 752 (H) × 582 (V) (effective),<br>795 (H) x 596 (V) (total) |
| Signal system: | CCIR standard, PAL colour |
| Scanning system: | 2:1 interlaced, 625 lines, 50 fields/sec |
| Gain: | Auto/Manual (-3, 0, 3, 6, 9, 12, 15, 18dB) |
| Shutter control: | Auto/Manual (1/3, 1/6, 1/12, 1/25, 1/50, 1/100, 1/215, 1/425, 1/1000, 1/1750, 1/3500, 1/10000 sec.) |
| White balance: | ATW/One-push auto/5800K/3200K |
| Minimum illumination: | 4 lx |
| Recommended illumination: | More than 100 lx |
| Viewfinder: | 1-inch black and white CRT |
| Built-in microphone: | One-point stereo-type electret condenser microphone, direction selectable (0*/90*/120*) |
| Built-in speaker: | Dynamic speaker |

### VTR

| | |
|---|---|
| Tape speed: | Approx. 28.221mm/sec |
| Maximum recording time: | 184 minutes (with PDV-184ME) |

### INPUTS/OUTPUTS

| | |
|---|---|
| DV OUT: | DV type, 4-pin (×1) (IEEE1394) |
| Video output: | Composite: BNC connector (x1), Phono jack (×1),<br>1.0Vp-p, 75Ω, sync negative<br>S-Video: 4-pin mini DIN connector (×1)<br>Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p (subcarrier burst), 75Ω |
| Audio output: | Phono jack (×1) |
| External audio input: | XLR 3-pin (×2) (MIC/LINE selectable) |
| External microphone input: | Stereo mini jack (×1) |
| LANC | Stereo mini-mini jack (×1) |
| Headphone jack | Stereo mini jack (×1) |
| RFU DC output | Special mini jack (×1) (DC 5V) |
| External DC input | 4-pin for DK-715 cable |
| Viewfinder interface | 8-pin connector |

## DSR-PD1P

### Digital Camcorder

•Compact Digital Video Camera using a 1/3-inch color CCD chip with 810,000 pixels •Specially designed for DVCAM format •A 2 1/2-inch LCD (Liquid Crystal Display) equipped •Super SteadyShot picture stabilization •Info LITHIUM battery system which lets the user know the amount of power remainning in the battery •Photo mode to record approzimately 140 individual still images with PVDM-40ME DVCAM tape •DV IN/OUT interface for digital-to-digital transfer of audio/video information (IEEE-1394 compatible) •Drop frame time code for frame accurate editing on an editing VCR •Control-L (LANC) editing interface

SONY
20x DIGITAL ZOOM
Super SteadyShot
DVCAM
SONY

| | |
|---|---|
| Supplied Accessories: | RMT-807 Wireless Remote Control<br>A/V Cable-special<br>Vanadium-Lithium Battery (Built-in)<br>AA Batteries (×2) |
| Optional Accessories: | AC-V100/B AC Adaptor (with DK626)<br>NP-F220/B Rechargeable Lithium-ion Battrery (1400 mAh)<br>VMC-LM7 Lanc/Microphone Adaptor<br>ACC KIT-PD1 Accessory Kit |

### Specifications

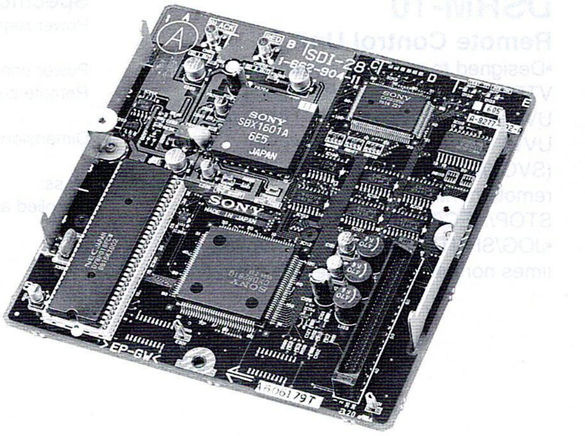
| | |
|---|---|
| Imaging Device: | 1/3-inch colour CCD, 810,000 pixels (gross)<br>400,000 pixels (effective) |
| Lens: | 10:1 variable speed zoom lens (1.0 to 29 seconds at stand -by, 1.5 to 29 seconds at recording)<br>f = 4.0 to 40 mm; F1.8 to 2.6; filter diameter 37 mm |
| Focusing: | Auto/Manual/Infinity |
| White Balance: | Auto/Hold/Outdoor/Indoor |
| Minimum illumination: | 3 lux at F1.8 |
| Exposure: | Auto |
| Shutter: | 1/50 to 1/4,000 second (In AE mode) |
| LCD: | Advanced Colour LCD 84,480 dots |
| Viewfinder: | 0.55" 113k dots colour viewfinder |
| Continuous Recording Time with LCD: | 95 min. (NP-F220/B, Fully changed) |
| Video/Audio Recording System: | Helical scanning system |
| Maximum Recording Time: | 40 min. (PDVM-40ME) |
| Video/Audio Output: | Special AV Mini (to convert RCA pin), S-video |
| Audio Output: | Special AV Mini Stereo |
| Headphone Jack: | Stereo Mini |
| Control-L (LANC): | Stereo Mini (using optional, VC-LM7) |
| Terminal: | Stereo (Wind Position, auto only) |
| Microphone: | 6.0W (LCD on), 5.0W (LCD off) |
| Power Consumption: | 59 (W) × 129 (H) × 118 (D) mm<br>($2^3/_8 \times 5^1/_8 \times 4^5/_8$ inches) |
| Dimensions: | 1.1 lb (520 g) (Without battery and tape) |
| Mass: | RMT-807 Wireless Remote Control |

## DSBK-100P

### SDI Output Board for DSR-60P

- When installed in the DSR-60P, this board enables digital video and audio signals in the D1 format to be output to other SDI equipped devices such as Digital Betacam
- Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656

| | |
|---|---|
| Connector: | Output : BNC ×2 |

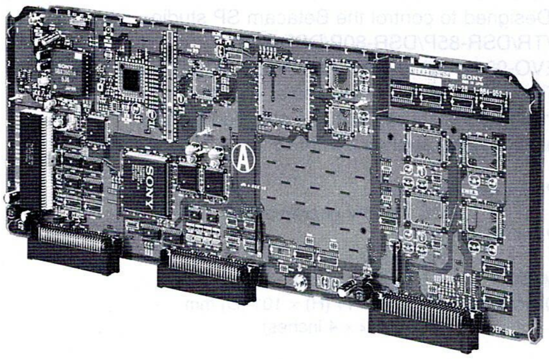


## DSBK-110P

### QSDI Output Board for DSR-60P

- When installed in the DSR-60P, this board enables QSDI-format digital video, audio and time code signals to be transferred to other QSDI equipped devices such as the DSR-80P, DSR-85P or EditStation
- Conforms to QSDI format (270Mbps)

| | |
|---|---|
| Connector: | Output : BNC ×1 |

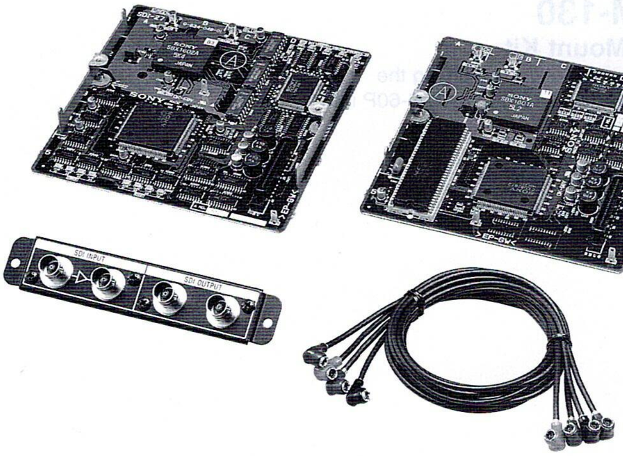


## DSBK-120P

### SDI Input/Output Board for DSR-80P and DSR-85P

- When installed in the DSR-80P or DSR-85P, this board enables digital video and audio signals in the D1 format to be input to the unit and output from other SDI equipped devices such as Digital Betacam
- Conforms to Serial Digital Interface (270Mbps), ITU-R BT.656

| | |
|---|---|
| Connector: | Input : BNC ×2<br>Output : BNC ×2 |

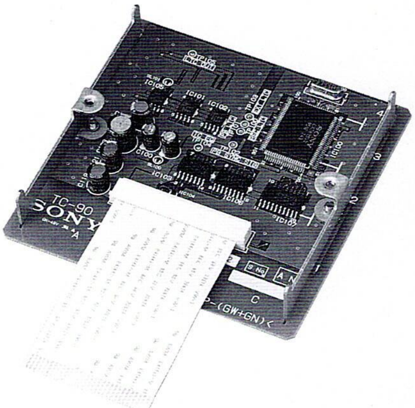


## DSBK-130P

### Time Code Input/Output Board for DSR-60P, DSR-80P and DSR-85P

- When installed in the DSR-60P, DSR-80P or DSR-85P, this board enables EBU-format time code (LTC) to be input to the unit and output from other equipment

| | |
|---|---|
| Connector: | Input : BNC ×1<br>Output : BNC ×1 |



## DSRM-10

### Remote Control Unit

- Designed to remotely control the DVCAM VTRs (DSR-85P/DSR-80P/ DSR-60P), UVW VTRs (UVW-1800P/ UVW-1600P/ UVW-1200P) and S-VHS VTRs (SVO-9620/SVP-9020)
- Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
- JOG/SHUTTLE operation
- Enables ±16 times normal speed in search operation

**Specifications**

| | |
|---|---|
| Power requirements: | DV 5V (supplied from the connected VTR) |
| Power consumption: | 50 mW |
| Remote control: | Stereo mini-plug (with attached cable, length 3 m (10ft)) |
| Dimensions: | 90 (w) × 46 (h) × 182 (d) mm ($3^{5}/_{8} \times 1^{13}/_{16} \times 7^{1}/_{4}$ inches) |
| Mass: | Approx. 360 g (12oz) |
| Supplied accessory: | Operating instructions |

## UVR-60P

### TBC Remote controller

- Designed to control the Betacam SP studio VTR/DSR-85P/DSR-80P/DSR-60P/ EVO-9850P/SVO-5800P/SVP-5600P built-in TBCs
- 19-inch rack mountable: Can be installed individually with the supplied blank panel or with another UVR-60P

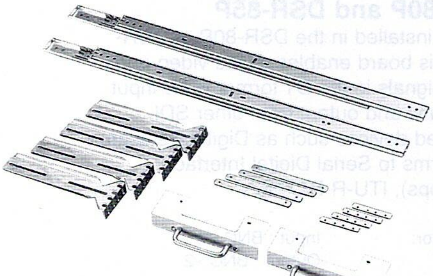
| | |
|---|---|
| Power requirements: | DC 12V, 9V (supplied from VTR) |
| Power consumption: | 840 mmW |
| Mass: | 1.3 kg (2 lb 13 oz) |
| Dimension: | 215 (W) × 44 (H) × 101 (D) mm ($8^{1}/_{2} \times 1^{3}/_{4} \times 4$ inches) |

Supplied accessories:
- Remote control cable (5 m)
- Rack mount bracket
- Blank panel
- Screw
- Operation manual

## RMM-130

### Rack Mount Kit

- Designed for use in mounting the DSR-85P, DSR-80P, and DSR-60P into 19-inch rack



## PDV series Digital videocassette tapes

### PDVM-12ME/22ME/32ME/40ME (Mini size)
### PDV-34ME/64ME/94ME/124ME/184ME (Standard size)

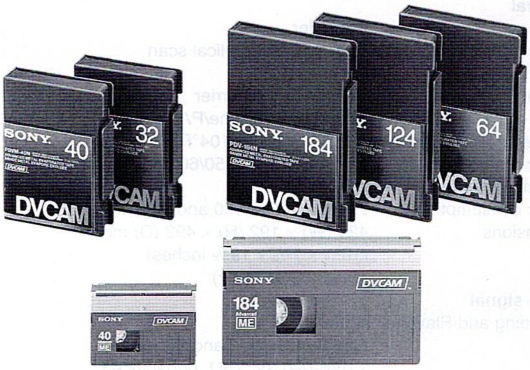
| Model | Tape length m (feet) | Recording/Playback time (min) | Mass* g (lb.) |
|---|---|---|---|
| PDVM-12ME | 24 (79) | 12 | 61 (0.134) |
| PDVM-22ME | 41 (135) | 22 | 62 (0.137) |
| PDVM-32ME | 58 (190) | 32 | 63 (0.139) |
| PDVM-40ME | 71 (233) | 40 | 64 (0.141) |
| PDV-34ME | 61 (200) | 34 | 124 (0.27) |
| PDV-64ME | 112 (367) | 64 | 128 (0.28) |
| PDV-94ME | 163 (535) | 94 | 132 (0.29) |
| PDV-124ME | 214 (702) | 124 | 135 (0.30) |
| PDV-184ME | 315(1,033) | 184 | 142 (0.31) |

*With case

•For DSR-85P, DSR-80P, DSR-60P, DSR-30P, DSR-200P, DSR-1P, and DSR-PD1P •Advanced Metal Evaporated cassette tapes •Enhanced protection with DLC (Diamond-Like Carbon) coating •Built-in16kbit IC memory

## PDV series Digital videocassette tapes (Non IC type)

### PDVM-32N/40N (Mini size)
### PDV-64N/124N/184N (Standard size)



| Model | Tape length m (feet) | Recording/Playback time (min) | Mass* g (lb.) |
|---|---|---|---|
| PDVM-32N | 58 (190) | 32 | 63 (0.139) |
| PDVM-40N | 71 (233) | 40 | 64 (0.141) |
| PDV-64N | 112 (367) | 64 | 128 (0.282) |
| PDV-124N | 214 (702) | 124 | 135 (0.298) |
| PDV-184N | 315(1,033) | 184 | 142 (0.313) |

*With case

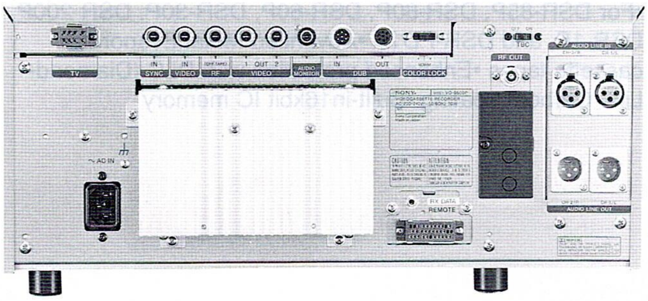
•For DSR-85P, DSR-80P, DSR-60P, DSR-30P, DSR-200P, DSR-1P, and DSR-PD1P •Advanced Metal Evaporated cassette tapes •Enhancing protection with a DLC (Diamond Like Carbon) coating •Non IC memory

## VO-9600P (PAL)

### Recorder

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/High Band/Low Band recording and playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •FCG-700 Frame Code Generator (optional) for frame code recording •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •Timer operation for recording and playback operation using an external timer •33-pin REMOTE connector for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Search Dial for high speed picture search at STILL, 1/30, 1/10, 1/5, 1/2, 1, 2, 5 times normal speed in the forward and reverse directions •Audio dubbing on CH-1 for additional audio recording on the audio CH-1 •Audio XLR balanced connectors for connection with professional audio equipment •Connection to an external TBC •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507

SONY
U-matic SP



| | |
|---|---|
| Supplied accessories: | Operation manual<br>RF unit cover |
| Optional accessories: | Frame code generator FCG-700<br>Computer interface board BKU-701<br>Auto search control unit RX-707<br>Remote control unit RM-770<br>Remote control unit RM-500/580<br>Dubbing cable VDC-5A (5m)<br>Colour RF kit RFK-660UCE/UF/CH<br>Rack mount kit RMM-507 |

### Specifications

| | |
|---|---|
| **General** | |
| Type: | Recorder |
| Video recording system: | Rotary 2 head helical scan |
| Luminance: | FM recording |
| Chrominance: | Converted subcarrier |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Operating voltage: | AC 198 to 264V |
| Power consumption: | 75W (with RM-580 and RFK-660) |
| Dimensions: | 424 (W) × 192 (H) × 492 (D) mm<br>($16\frac{3}{4} \times 7\frac{5}{8} \times 19\frac{3}{8}$ inches) |
| Mass: | 18 kg (39 lb 11 oz) |
| **Video signal** | |
| Recording and Playback mode: | Low Band/High Band/SP mode |
| Input: | 1.0Vp-p±0.3V, 75Ω, unbalanced |
| Output: | LINE: 1.0Vp-p±0.2V, 75Ω, unbalanced |
| Horizontal resolution: | |
| SP mode | 300 lines (colour) |
| High Band mode | 260 lines (colour) |
| Low Band mode | 250 lines (colour) |
| S/N ratio (colour): | Better than 46dB |
| EXT sync input: | 2.5V (2.0 to 5.0V)p-p, 75Ω, unbalanced, negative |
| RF OUT (OFF TAPE): | 0.5Vp-p ±0.1V, 75Ω, unbalanced |
| **Audio signal** | |
| Input: | MIC: –60dBu, at 3kΩ load, unbalanced<br>LINE: –5dBu, at 10kΩ load, balanced |
| Output: | LINE: +4dBu, at 600Ω load, balanced<br>HEADPHONE: –26 to –46dBu, at 8Ω load, unbalanced<br>MONITOR: –5dBu, at 47kΩ load, unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | |
| SP mode (Dolby off) | Better than 52dB (3% distortion) |
| Conventional mode | Better than 50dB (3% distortion) |
| **RF output** | With optional RF kit |

| | |
|---|---|
| **Tape transport** | |
| Tape speed: | 9.53cm/s (3.8ips) |
| Wow and flutter: | ±0.23%p-p (DIN) |
| REC or PB time: | Max. 60min |
| Videocassette: | KSP/KSP-S/KCA-BRS/KCS-BRS |
| **Technical features** | |
| Frame code operation: | YES (with BKU-701) |
| Remote control: | YES (33-pin and simple) |
| Electronic editing: | NO |
| Time code editing: | NO |
| Time code capability: | NO |
| High speed picture search: | YES (1/30, 1/10, 1/5, 1, 2, 5) |
| Jog search: | NO |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | YES (C-Type) |
| Audio dubbing: | YES (CH-1) |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL and frame code counter with BKU-701) |
| Timer operation: | YES (with an optional timer) |
| RF unit adaptable: | YES |

**VO-9600P**
**RECORDING MODE DETECTION SYSTEM**

DUB IN CONNECTOR

| VIDEOCASSETTE | INPUT SIGNAL | RECORDING MODE |
|---|---|---|
| KSP series | SP | SP |
| KCA/KCS series | | HIGH BAND |
| KSP series | HIGH BAND | SP |
| KCA/KCS series | | HIGH BAND |
| KSP series | LOW BAND | LOW BAND |
| KCA/KCS series | | LOW BAND |

VIDEO IN CONNECTOR

| VIDEOCASSETTE | REC MODE POSITION | RECORDING MODE |
|---|---|---|
| KSP series | SP/HIGH | SP |
| | LOW | LOW BAND |
| KCA/KCS series | SP/HIGH | HIGH BAND |
| | LOW | LOW BAND |

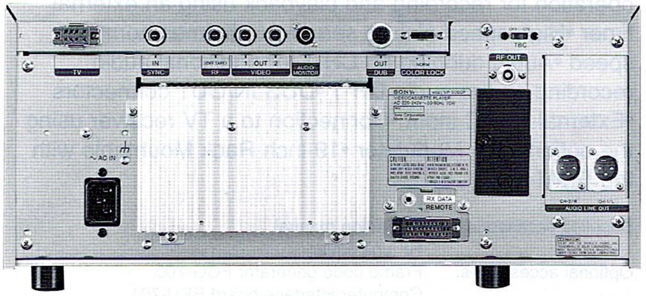
**VO-9600P/VP-9000P**
**PLAYBACK MODE DETECTION SYSTEM**

| VIDEOCASSETTE | RECORDING SIGNAL | PLAYBACK MODE |
|---|---|---|
| KSP series | SP | SP |
| | HIGH | HIGH |
| | LOW | LOW |
| KCA/KCS series | HIGH | HIGH |
| | LOW | LOW |

## VP-9000P (PAL)

### Player

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/High Band/Low Band playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •Timer operation for playback using an external timer •33-pin REMOTE connector for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Search Dial for high speed picture search at STILL, 1/30, 1/10, 1/5, 1/2, 1, 2, 5 times normal speed in the forward and reverse directions •Audio XLR balanced connector for connection with professional audio equipment •Connection to an external TBC •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507



| | |
|---|---|
| Supplied accessories: | Operation manual<br>RF unit cover |
| Optional accessories: | Computer interface board BKU-701<br>Auto search control unit RX-707<br>Remote control unit RM-770<br>Remote control unit RM-500/580<br>Dubbing cable VDC-5A (5 m)<br>Colour RF kit RFK-660UCE/UF/CH<br>Rack mount kit RMM-507 |

## Specifications

| | |
|---|---|
| **General** | |
| Type: | Player |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Operating voltage: | AC 198 to 264V |
| Power consumption: | 70W (with RM-580 and RFK-660) |
| Dimensions: | 424 (W) × 192 (H) × 492 (D) mm<br>($16^3/_4 \times 7^5/_8 \times 19^3/_8$ inches) |
| Mass: | 18 kg (39 lb 11 oz) |
| **Video signal** | |
| Playback mode: | Low Band/High Band/SP mode |
| Output: | LINE: 1.0Vp-p±0.2V, 75Ω, unbalanced |
| Horizontal resolution: | |
| SP mode | 300 lines (colour) |
| High Band mode | 260 lines (colour) |
| Low Band mode | 250 lines (colour) |
| S/N ratio (colour): | Better than 46dB |
| EXT sync input: | 2.5V (2.0 to 5.0V) p-p, 75Ω, unbalanced, negative |
| RF OUT (OFF TAPE): | 0.5Vp-p ±0.1V, 75Ω, unbalanced |
| **Audio signal** | |
| Output: | LINE: +4dBu, at 600Ω load, balanced<br>HEADPHONE: –26 to –46dBu, at 8Ω load, unbalanced<br>MONITOR: –5dBu, at 47kΩ load, unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | |
| SP mode (Dolby off) | Better than 52dB (3% distortion) |
| Conventional mode | Better than 50dB (3% distortion) |
| **RF output** | With optional RF kit |
| **Tape transport** | |
| Tape speed: | 9.53cm/s (3.8ips) |
| Wow and flutter: | ±0.23% p-p (DIN) |
| PB time: | Max. 60min |
| Videocassette: | KSP/KSP-S/KCA-BRS/KCS-BRS |
| **Technical features** | |
| Frame code operation: | YES (with BKU-701) |
| Remote control: | YES (33-pin and simple) |
| Electronic editing: | NO |
| Time code editing: | NO |
| Time code capability: | NO |
| High speed picture search: | YES (1/30, 1/10, 1/5, 1, 2, 5) |
| Jog search: | NO |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | YES (C-Type) |
| Audio dubbing: | NO |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL and frame code counter with BKU-701) |
| Timer operation: | YES (with an optional timer) |
| RF unit adaptable: | YES |

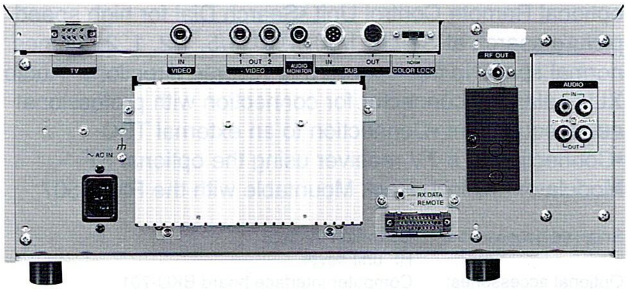
**SP IMPROVEMENTS**

| Videocassette | Recording U-matic | Playback U-matic | Luminance frequency response (resolution) | Luminance ringing | Chrominance ringing |
|---|---|---|---|---|---|
| KSP series | SP | SP | Very much improved | Very much improved | Very much improved |
| KSP series | SP | High Band | Much improved | Much improved | Improved |
| KSP series | High Band | SP | — | — | Improved |
| KSP series | High Band | High Band | — | — | — |
| KCA/KCS series | SP | SP | — | Much improved | Much improved |
| KCA/KCS series | SP | High Band | — | Improved | Improved |
| KCA/KCS series | High Band | SP | — | — | — |
| KCA/KCS series | High Band | High Band | — | — | — |

## VO-7630 (PAL/SECAM/NTSC4.43)

### Recorder

•High quality U-matic picture and sound •PAL (low band)/ SECAM/NTSC4.43 playback capability •PAL (low band)/ SECAM recording capability •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •FCG-700 Frame Code Generator (optional) for frame code recording •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •33-pin REMOTE connector for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Timer operation for recording and playback using an external timer •High speed picture search at ±5 times normal speed •Audio dubbing on CH-1 for additional audio recording on the audio CH-1 •DUB IN/OUT connectors •External SYNC input •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507



| | |
|---|---|
| Supplied accessories: | Operation manual<br>RF unit cover |
| Optional accessories: | Frame code generator FCG-700<br>Computer interface board BKU-701<br>Auto search control unit RX-707<br>Remote control unit RM-770<br>Remote control unit RM-500/580<br>Colour RF kit RFK-660UCE/UF/CH<br>Rack mount kit RMM-507 |

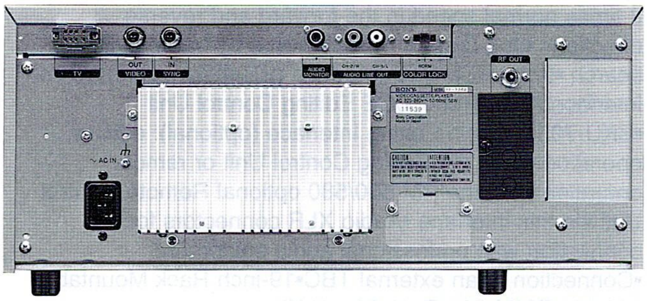
### Specifications

| | |
|---|---|
| **General** | |
| Type: | Recorder |
| Video recording system: | Rotary 2-head helical scan<br>Luminance: FM recording<br>Chrominance: Converted subcarrier |
| Video signal system: | CCIR/EIA monochrome<br>PAL/SECAM/NTSC4.43 colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V (100 to 120V: USA model), 50/60Hz |
| Operating voltage: | AC 198 to 264V |
| Power consumption: | 65W (with RM-580 and RFK-660) |
| Dimensions: | 424 (W) × 192 (H) × 492 (D) mm<br>($16^{3}/_{8}$ → $16^{3}/_{4} \times 7^{5}/_{8} \times 19^{3}/_{8}$ inches) |
| Mass: | 17 kg (37 lb 8 oz) |
| **Video signal** | |
| Recording and Playback mode: | Low Band mode |
| Input: | 1.0Vp-p $^{+1.0}_{-0.5}$V, 75Ω, unbalanced |
| Output: | LINE: 1.0Vp-p ±0.2V, 75Ω, unbalanced |
| Horizontal resolution: | 250 lines (colour) |
| S/N ratio (colour): | Better than 46dB |
| **Audio signal** | |
| Input: | MIC: –60dBu, at 3kΩ load, unbalanced<br>LINE: –10dBu, 47kΩ, unbalanced |
| Output: | LINE/MONITOR: –5dBu, at 47kΩ load, unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | Better than 50dB (3% distortion) |
| **RF output** | With optional RF kit |
| **Tape transport** | |
| Tape speed: | 9.53cm/s (3.8 ips) |
| Wow and flutter: | 0.23% p-p (DIN) |
| REC or PB time: | Max. 60min |
| Videocassette: | KCA-BRS/KCS-BRS/KCA-XBR/KCS-XBR |
| **Technical features** | |
| Frame code operation: | YES (with BKU-701) |
| Remote control: | YES (33-pin and simple) |
| Electronic editing: | NO |
| Time code editing: | NO |
| Time code capability: | NO |
| High speed picture search: | YES (×5) |
| Jog search: | NO |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | NO |
| Audio dubbing: | YES (CH-1) |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL and frame code counter with BKU-701) |
| Timer operation: | YES (with an optional timer) |
| RF unit adaptable: | YES (USA model: NO) |

## VP-7040 (PAL/SECAM/NTSC$_{4.43}$)

### Player

•High quality U-matic picture and sound •PAL (low band)/ SECAM/NTSC$_{4.43}$ playback capability •BKU-701 Computer Interface Board (RS-232C) (optional) for external computer operation •Frame Code Operation: random access and sophisticated program operation from the RX-707 optional Auto Search Control Unit or an external computer •Programmed operation with MARK IN A and MARK IN B •BKU-702 (optional) 33-pin REMOTE interface for remote operation from the RM-500/580 optional Remote Control Unit •Wired/wireless remote operation via the RM-770 optional Remote Control Unit •Timer operation for playback using an external timer •High speed picture search at ±5 times normal speed •DUB OUT connector •External SYNC input •Connection to a TV receiver using the optional RF Modulator •19-inch Rack Mountable with the RMM-507



| | |
|---|---|
| Supplied accessories: | Operation manual<br>RF unit cover |
| Optional accessories: | 33-pin interface board BKU-702<br>Computer interface board BKU-701<br>Frame code generator FCG-700<br>Computer interface board BKU-701<br>Auto search control unit RX-707<br>Remote control unit RM-770<br>Remote control unit RM-500/580<br>Colour RF kit RFK-660UCE/UF/CH<br>Rack mount kit RMM-507 |

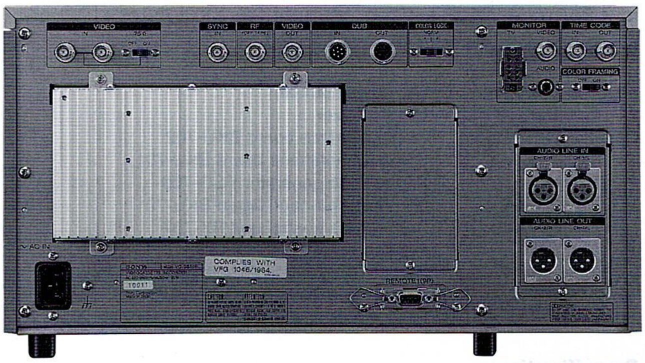
## Specifications

| | |
|---|---|
| **General** | |
| Type: | Player |
| Video signal system: | CCIR/EIA monochrome<br>PAL/SECAM/NTSC$_{4.43}$ colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V (100 to 120V: USA model), 50/60Hz |
| Operating voltage: | AC 198 to 264V |
| Power consumption: | 58W (with RM-580 and RFK-660) |
| Dimensions: | 424 (W) × 192 (H) × 492 (D) mm<br>($16\frac{3}{4} \times 7\frac{5}{8} \times 19\frac{3}{8}$ inches) |
| Mass: | 16 kg (35 lb 4 oz) |
| **Video signal** | |
| Playback mode: | Low Band mode |
| Output: | LINE: 1.0Vp-p ±0.2V, 75Ω, unbalanced |
| Horizontal resolution: | 250 lines (colour) |
| S/N ratio (colour): | Better than 45dB |
| EXT sync input: | 2.5V (1.0 to 5.0V) p-p, 75Ω, unbalanced, sync negative |
| **Audio signal** | |
| Output: | LINE/MONITOR: –5dBu, at 47kΩ load, unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | Better than 50dB (3% distortion) |
| **RF output** | With optional RF kit |
| **Tape transport** | |
| Tape speed: | 9.53cm/s (3.8 ips) |
| Wow and flutter: | 0.23% p-p (DIN) |
| PB time: | Max. 60min |
| Videocassette: | KCA-BRS/KCS-BRS/KCA-XBR/KCS-XBR |
| **Technical features** | |
| Frame code operation: | YES (with BKU-701) |
| Remote control: | 33-pin: YES (with BKU-702), Simple: YES |
| Electronic editing: | NO |
| Time code editing: | NO |
| Time code capability: | NO |
| High speed picture search: | YES (×5) |
| Jog search: | NO |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | NO |
| Audio dubbing: | NO |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL and frame code counter with BKU-701) |
| Timer operation: | YES (with an optional timer) |
| RF unit adaptable: | YES (USA model: NO) |

## VO-9850P (PAL)

### Editing recorder

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/High Band recording capability •SP/High Band/Low Band playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-705 Time Code Generator/Reader or BKU-704 Time Code Reader (optional) for accurate time code editing •Built-in Editing Facility allows ASSEMBLE and INSERT editing (VIDEO, AUDIO, CH-1/CH-2) •Dial Menu Operation via search dial for user convenience: setting of time code (with the BKU-705), display of time code character on the monitor screen, setting preroll time, etc. •Shuttle Dial for high speed picture search: STILL, 1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8 times normal speed in the forward and reverse directions •Jog Dial for precise frame by frame picture search •9-pin REMOTE Interface (RS-422A serial): to be interfaced with RM-450CE Editing Control Unit •BKU-703A 33-pin Editing Interface (optional): editing operation using the Editing Control Unit or remote operation from the RM-500/580 optional Remote Control Unit via this interface •Audio XLR connectors for connection with professional audio equipment •Connection to an external TBC•19-inch Rack Mountable with the RMM-501 Rack Mount Kit



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operation manual |
| Optional accessories: | 33-pin editing interface BKU-703A<br>Time code reader BKU-704<br>Time code generator/reader BKU-705<br>Editing control unit RM-450CE<br>Rack mount kit RMM-501<br>9-pin remote cable RCC-5G/10G/30G<br>Dubbing cable (5m) VDC-5A<br>33-pin remote cable RCC-5F |

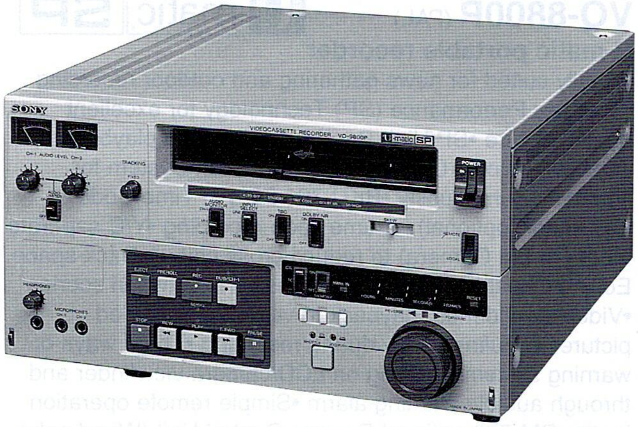
### Specifications

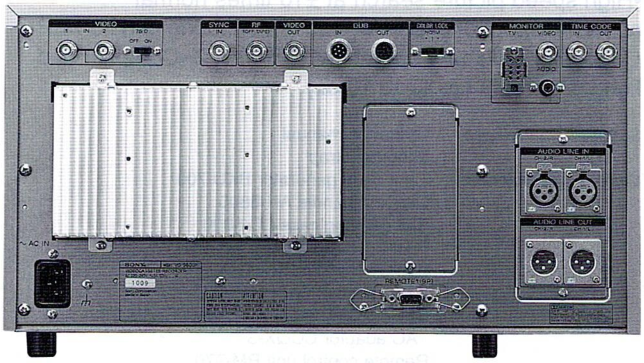
| | |
|---|---|
| **General** | |
| Type: | Editing Recorder |
| Video recording system: | Rotary 2 head helical scan<br>Luminance: FM recording<br>Chrominance: Converted subcarrier |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Operating voltage: | AC 99 to 264V |
| Power consumption: | 85W (with BKU-703, BKU-704 and RM-440) |
| Dimensions: | 426 (W) × 238 (H) × 513 (D) mm<br>(16$^{7}/_{8}$ × 9$^{3}/_{8}$ × 20$^{1}/_{4}$ inches) |
| Mass: | 21.4 kg (47 lb 2 oz) |
| **Video signal** | |
| Recording and playback mode: | High band and SP mode<br>Low band mode (playback only) |
| Input: | 1.0Vp-p ±0.3V, sync negative 75Ω, unbalanced |
| Output: | 1.0Vp-p ±0.2V, sync negative 75Ω, unbalanced |
| Horizontal resolution: | |
| SP mode | 300 lines (colour) |
| High band mode | 260 lines (colour) |
| Low band mode | 250 lines (colour) |
| S/N ratio (colour): | Better than 46 dB |
| EXT sync input: | 2.5V (2.0 to 5.0V) p-p, negative, 75Ω, unbalanced |
| RF OUT (OFF TAPE): | 0.5V (0.3 to 1.0V) p-p, 75Ω, unbalanced |
| **Audio signal** | |
| Input: | MIC: –60dBu, 3kΩ, unbalanced<br>LINE: +4dBu, 10kΩ, balanced |
| Output: | LINE: +4dBu, at 600Ω, balanced<br>HEADPHONE: –26dBu to –46dBu, at 8Ω, unbalanced<br>MONITOR: –5dBu at 47kΩ, unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | |
| SP mode (Dolby off) | Better than 52dB (3% distortion) |
| Conventional mode | Better than 50dB (3% distortion) |
| **Time code** | |
| Input: | 0dB ±6dB, 10kΩ, unbalanced<br>(0dB=1.55Vp-p pulse) |
| Output: | 0dB ±3dB, low impedance, unbalanced<br>(0dB=1.55Vp-p pulse) |
| **RF output** | NO |
| **Tape transport** | |
| Tape speed: | 9.53mm/s (3.8 ips) |
| Wow and flutter: | 0.23% p-p DIN |
| REC or PB time: | Max. 60min |
| Videocassette: | KSP/KSP-S/KCA-BRS/KCS-BRS |
| **Technical features** | |
| Frame code operation: | NO |
| Remote control: | YES (9-pin and 33-pin) |
| Electronic editing: | YES |
| Time code editing: | YES (with BKU-704/705) |
| Time code capability: | YES (with BKU-704/705) |
| High speed picture search: | YES (1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8) |
| Jog search: | YES |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | YES (C-Type) |
| Audio dubbing: | YES (Insert editing CH-1/CH-2) |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL counter) |
| Timer operation: | NO |
| RF unit adaptable: | NO |

## VO-9800P (PAL)

### Recorder (Editing player)

•Superior Performance (SP) Technology for excellent quality picture through multi-generation recording •SP/High Band recording capability •SP/High Band/Low Band playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-704 Time Code Reader (optional) for accurate time code editing •Back-space Editing Capability for smooth transitions between scenes •Audio dubbing on CH-1 for additional audio recording on audio CH-1 •Dial Menu Operation via the search dial for user convenience: display of time code character on the monitor screen, setting preroll time, etc. •Jog/Shuttle Dial for high speed and precise picture search—Jog: frame by frame tape control, Shuttle: Still, 1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8 times normal speed in the forward and reverse directions •9-pin REMOTE Interface (RS-422A serial): to be interfaced with RM-450CE Editing Control Unit •BKU-703A 33-pin Editing Interface (optional): editing operation using the RM-440 Editing Control Unit or remote operation from the RM-500/580 optional Remote Control Unit via this interface •Audio XLR connectors for connection with professional audio equipment •Connection to an external TBC •19-inch Rack Mountable with the RMM-501 Rack Mount Kit





| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operational manual |
| Optional accessories: | 33-pin editing interface BKU-703A<br>Time code reader BKU-704<br>Editing control unit RM-450CE<br>Rack mount kit RMM-501<br>9-pin remote cable RCC-5G/10G/30G<br>Dubbing cable (5m) VDC-5A<br>33-pin remote cable RCC-5F |

## Specifications

| | |
|---|---|
| **General** | |
| Type: | Recorder (Editing player) |
| Video recording system: | Rotary 2 head helical scan<br>Luminance: FM recording<br>Chrominance: Converted subcarrier |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Operating voltage: | AC 99 to 264V |
| Power consumption: | 85W (with BKU-703, BKU-704 and RM-440) |
| Dimensions: | 426 (W) × 238 (H) × 513 (D) mm<br>($16^7/_8 \times 9^3/_8 \times 20^1/_4$ inches) |
| Mass: | 21.4 kg (47 lb 2 oz) |
| **Video signal** | |
| Recording and playback mode: | High band and SP mode<br>Low band mode (playback only) |
| Input: | 1.0Vp-p ±0.3V, sync negative 75Ω, unbalanced |
| Output: | 1.0Vp-p ±0.2V, sync negative 75Ω, unbalanced |
| Horizontal resolution: | |
| SP mode | 300 lines (colour) |
| High band mode | 260 lines (colour) |
| Low band mode | 250 lines (colour) |
| S/N ratio (colour): | Better than 46dB |
| EXT sync input: | 2.5V (2.0 to 5.0V) p-p, negative, 75Ω, unbalanced |
| RF OUT (OFF TAPE): | 0.5V (0.3 to 1.0V) p-p, 75Ω, unbalanced |
| **Audio signal** | |
| Input: | MIC: –60dBu, 3kΩ, unbalanced<br>LINE: +4dBu, 10kΩ, balanced |
| Output: | LINE: +4dBu, at 600Ω, balanced<br>HEADPHONE: –26dBu to –46dBu, at 8Ω, unbalanced<br>MONITOR: –5dBu at 47kΩ, unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | |
| SP mode (Dolby off) | Better than 52dB (3% distortion) |
| Conventional mode | Better than 50dB (3% distortion) |

| | |
|---|---|
| **Time code** | |
| Input: | 0dB ±6dB, 10kΩ, unbalanced<br>(0dB=1.55Vp-p pulse) |
| Output: | 0dB ±3dB, low impedance, unbalanced<br>(0dB=1.55Vp-p pulse) |
| **RF output** | NO |
| **Tape transport** | |
| Tape speed: | 9.53mm/s (3.8 ips) |
| Wow and flutter: | 0.23% p-p DIN |
| REC or PB time: | Max. 60min |
| Videocassette: | KSP/KSP-S/KCA-BRS/KCS-BRS |
| **Technical features** | |
| Frame code operation: | NO |
| Remote control: | YES (9-pin and 33-pin) |
| Electronic editing: | YES (Back space editing) |
| Time code editing: | YES (with BKU-704) |
| Time code capability: | YES (with BKU-704) |
| High speed picture search: | YES (1/30, 1/10, 1/5, 1/2, 1, 2, 5, 8) |
| Jog search: | YES |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | YES (C-Type) |
| Audio dubbing: | YES (CH-1) |
| EXT sync lock (vertical): | YES |
| Programmed operation: | YES (CTL counter) |
| Timer operation: | NO |
| RF unit adaptable: | NO |

# 3-3 U-matic portable recorder

## VO-8800P (PAL) U-matic SP

### U-matic portable recorder

•Ideally suited for news gathering and outdoor recording •Superior Performance (SP) Technology for excellent quality picture •SP/High Band recording and playback capability •Dolby C-type Noise Reduction System for superior sound quality •BKU-706 Plug-in Time Code Generator (optional) for time code recording •Y/C separate input (14-pin Camera) to reduce cross colour •Back-space Editing Capability for smooth transitions between scenes •Video Confidence Playback to verify the recorded pictures simultaneously during recording •Three ways of warning system: warning on LCD/camera viewfinder and through audible warning alarm •Simple remote operation by the RM-770 optional Remote Control Unit (Wired only) •High speed picture search at ±10 times normal speed •Headphone jack for audio monitoring •Audio XLR Connectors •Battery operation: NP-1B × 2 •Compact and lightweight (6.2 kg, 13 lb 10 oz)

| | |
|---|---|
| Supplied accessories: | Operation manual<br>Shoulder strap |
| Optional accessories: | Time code generator BKU-706<br>Carrying handle AH-8800<br>Soft carrying case LC-8800<br>Rechargeable battery NP-1B<br>Battery charger BC-1WDCE<br>Camera adaptor CMA-8ACE<br>Cable (CMA-8ACE g VO-8800P) 3m for AC adaptor CCQX-3<br>Remote control unit RM-770 |

## Specifications

| | |
|---|---|
| **General** | |
| Type: | SP U-matic Portable Recorder |
| Video recording system: | Rotary 4 head helical scan<br>Luminance: FM recording<br>Chrominance: Converted subcarrier |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Power requirements: | DC 12V |
| Operating voltage: | DC 11 to 14V |
| Power consumption: | 17.5W |
| Dimensions: | 263 (W) × 130 (H) × 354 (D) mm<br>($10^{3}/_{8} \times 5^{1}/_{8} \times 14$ inches) |
| Mass: | 6.2 kg (13 lb 10 oz) |
| **Video signal** | |
| Recording and Playback mode: | High band and SP mode |
| Input: | 1.0Vp-p ±0.3V, sync negative 75Ω, unbalanced |
| Output: | 1.0Vp-p ±0.2V, sync negative 75Ω, unbalanced |
| Horizontal resolution: | |
| SP mode | 330 lines (colour, Y/C input)<br>300 lines (colour, composite) |
| High Band mode | 260 lines (colour, composite) |
| S/N ratio (colour): | Better than 46dB |
| **Audio signal** | |
| Input: | AUDIO IN CH-1/L/DUB, CH-2/R (XLR 3-pin, female) × 1 each<br>+4dBu/–20dBu/–60dBu switchable<br>+4dBu: more than 10kΩ, balanced<br>–20dBu/–60dBu: more than 3kΩ, balanced<br>CAMERA (microphone input) (audio channel 2)<br>+4dBu/–20dBu/–60dBu switchable<br>+4dBu: more than 10kΩ, balanced<br>–20dBu/–60dBu: more than 3kΩ, balanced |
| Output: | AUDIO OUT CH-1/L (monitor), CH-2/R (XLR 3-pin, male) × 1 each<br>+4dBu, low impedance, balanced<br>Headphone: –40dBu to –20dBu (at 8Ω), unbalanced |
| Frequency response: | 50Hz to 15kHz |
| S/N ratio: | |
| SP mode (Dolby off) | Better than 52dB (3%distortion) |
| Conventional mode | Better than 50dB (3%distortion) |

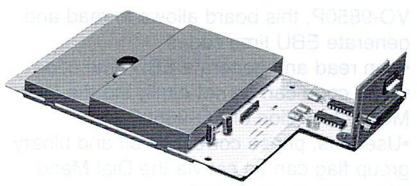
| | |
|---|---|
| **Time code** | |
| Input: | 0dB ±6dB, 10kΩ, unbalanced<br>(0dB=1.55Vp-p pulse) |
| Output: | 0dB ±3dB, low impedance, unbalanced<br>(0dB=1.55Vp-p pulse) |
| **RF output** | NO |
| **Tape transport** | |
| Tape speed: | 9.53cm/s (3.8 ips) |
| Wow and flutter: | 0.2% p-p DIN |
| REC or PB time: | Max. 20min |
| Videocassette: | KSP-S/KCS-BRS |
| **Technical features** | |
| Frame code operation: | NO |
| Remote control: | YES (simple, wired only) |
| Electronic editing: | YES (Back space editing) |
| Time code editing: | YES (with BKU-706) |
| Time code capability: | YES (with BKU-706) |
| High speed picture search: | YES (× 10) |
| Jog search: | NO |
| Noiseless pause/still: | YES |
| Dolby noise reduction: | YES (C-Type) |
| Audio dubbing: | YES (CH-1) |
| EXT Sync lock (vertical): | YES |
| Programmed operation: | NO |
| Timer operation: | NO |
| RF unit adaptable: | NO |

## BKU-701

### Computer interface board

- Reads the Frame Codes that have been recorded onto the videocassette tape
- Provides an RS-232C interface and allows the VTRs to be controlled from an external computer or the RX-707
- Video/audio signals can be output or muted by setting the BKU-701 dip switches to ON or OFF
- The baud rate can be selected from 1200, 2400, 4800, or 9600 bits per second (bps)

Signal: RS-232C
Connector: D-sub 25-pin
Dimensions: Approx. 125 (W) × 52 (H) × 223 (D) mm ($5 \times 2\frac{1}{8} \times 8\frac{7}{8}$ inches)
Mass: Approx. 260 g (9 oz)
Recommended VTR: VO-7630/9600P, VP-7040/9000P
Supplied accessory: Operation manual

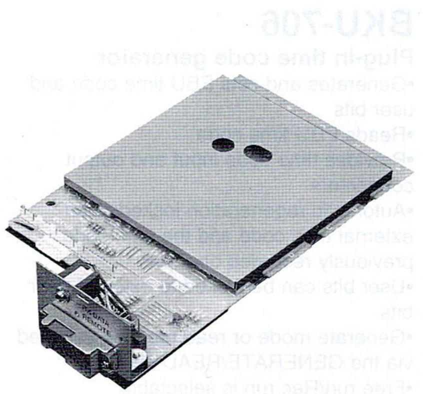


## BKU-702

### 33-pin interface board

- When the BKU-702 is installed into the VP-7040, the VP-7040 can be controlled remotely by a current 33-pin remote control unit such as the RM-500/555/580

Dimensions: 125 (W) × 52 (H) × 223 (D) mm ($5 \times 2\frac{1}{8} \times 8\frac{7}{8}$ inches)
Mass: Approx. 260 g (9 oz)
Recommended VTR: VP-7040
Supplied accessory: Installation manual

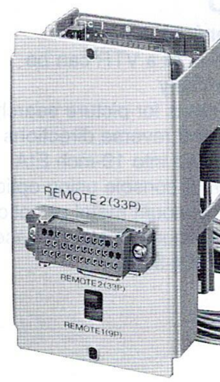


## BKU-703A

### 33-pin editing interface

- The BKU-703A 33-pin (parallel) editing interface can be installed into the VO-9850P/9800P, EVO-9850P for connection with the 33-pin remote control units such as the RM-500, RM-580 and RM-555

Dimensions: 63 (W) × 109 (H) × 64 (D) mm ($2\frac{1}{2} \times 4\frac{3}{8} \times 2\frac{5}{8}$ inches)
Mass: 230 g (8 oz)
Recommended VTR: VO-9850P/VO-9800P and EVO-9800P
Supplied accessory: Installation manual

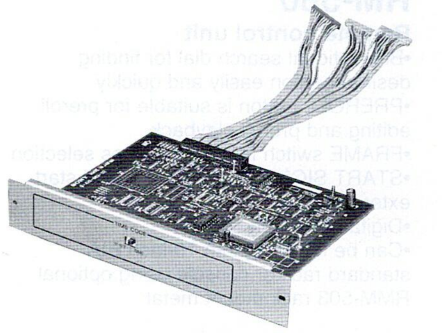


## BKU-704

### Time code reader

- When the BKU-704 is installed into the VO-9850P/9800P, this board allows to read EBU time codes
- Time code or user bits can be superimposed on the video signal (monitor output) via the Dial Menu Operation of VO-9850P/9800P
- Easy installation

Time Code: EBU
Dimensions: 199 (W) × 41 (H) × 145 (D) mm ($7\frac{7}{8} \times 1\frac{5}{8} \times 5\frac{3}{4}$ inches)
Mass: 190 g (7 oz)
Recommended VTR: VO-9850P and VO-9800P
Supplied accessory: Installation manual

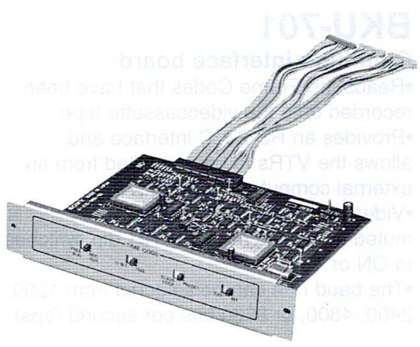


## BKU-705

### Time code generator/reader

- When the BKU-705 is installed into the VO-9850P, this board allows to read and generate EBU time codes
- Can read and generate EBU time code
- Time code can be set easily via the Dial Menu Operation of VO-9850P
- User bits, phase correction bit and binary group flag can be set via the Dial Menu Operation of VO-9850P
- Free-run/rec-run mode can be selected via a switch
- Time code or user bits can be super imposed on the video signal (monitor output) via the Dial Menu Operation of VO-9850P
- Regeneration capability to an external time code or the one previously recorded on the tape
- Easy installation

Time Code: EBU
Dimensions: 199 (W) × 41 (H) × 145 (D) mm
($7^{7}/_{8}$ × $1^{5}/_{8}$ × $5^{3}/_{4}$ inches)
Mass: 200 g (7 oz)
Recommended VTR:
VO-9850P
Supplied accessory:
Installation manual



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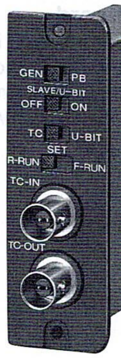
## BKU-706

### Plug-in time code generator

- Generates and sets EBU time code and user bits
- Reads EBU time code
- Provides time code input and output connectors
- Automatic regeneration locked to an external time code and the time code previously recorded on tape
- User bits can be locked to external user bits
- Generate mode or read mode is selected via the GENERATE/READ switch
- Free run/Rec run is selectable
- Time code data is memorized and generated for more than 12 hours after the power is turned off when NP-1B batteries are installed

Time code: EBU
Dimensions: 28 (W) × 86 (H) × 81 (D) mm
($1^{1}/_{8}$ × $3^{1}/_{3}$ × $3^{1}/_{4}$ inches)
Mass: 130 g (5 oz)
Recommended VTR:
VO-8800P
Supplied accessory:
Installation manual



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## RM-500

### Remote control unit

- Basic functions of a VTR can be controlled remotely
- SEARCH buttons for picture search in both forward and reverse directions
- Can be mounted into 19-inch EIA standard rack or console using optional RMM-502 rack mount metal or optional RMM-505 rack mount metal (in case of attaching two RM-500s)

Power requirements:
DC 6.8V $^{+0.7}_{-0.3}$ V
(supplied from the VTR)
Power consumption: 1.2W
Operating temperature:
0 to 40°C (32 to 104°F)
Operating position: Any position
Dimensions: Approx.
212 (W) × 87 (H) × 38 (D) mm
($8^{3}/_{8}$ × $3^{1}/_{2}$ × $1^{1}/_{2}$ inches)
Cable length: Approx. 3 m (10 ft.)
with 33-pin connector
Extendable up to
approx. 18 m (60 ft.)
Mass: Approx. 0.9 kg (2 lb) incl. cable
Recommended VTR:
VO-7630/9600P,
VP-7040/9000P

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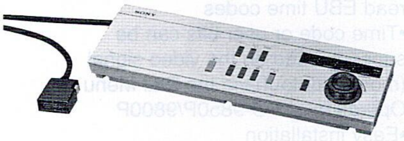
## RM-580

### Remote control unit

- Bidirectional search dial for finding desired portion easily and quickly
- PREROLL button is suitable for preroll editing and preroll playback
- FRAME switch for 30/25 frames selection
- START SIGN to trigger the preroll start externally
- Digital tape time counter
- Can be mounted into 19-inch EIA standard rack or console using optional RMM-503 rack mount metal

Power requirements: DC 6.8V $^{+0.7}_{-0.3}$ V
(supplied from the VTR)
Power consumption: 2.0W

Digital time counter:
–9hours 59min 59s
29/24 frames to +9 hours 59min
59s 29/24 frames
Operating temperature:
0 to 40°C (32 to 104°F)
Operating position: Any position
Dimensions: Approx.
424 (W) × 60 (H) × 124 (D) mm
($16^{3}/_{4}$ × $2^{3}/_{8}$ × 5 inches)
Cable length: Approx. 3 m (10 ft.)
with 33-pin connector
Extendable up to
approx. 18 m (60 ft.)
Mass: Approx.
2.0 kg (4 lb 7 oz) incl. cable
Recommended VTR:
VO-7630/9600P, VP-7040/9000P



## RM-770

### Remote control unit

- Wireless/wired remote control capability for the VO-8800P/6800PS/7630/9600P, VP-7040/9000P
- Controls advanced functions such as SEARCH-FWD/SEARCH-REW, in addition to the basic functions of STOP/ REC/ PAUSE/F FWD/PLAY

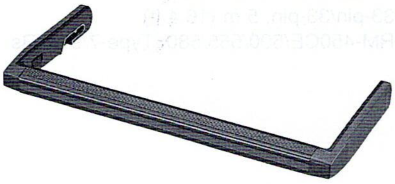
Power requirements:
DC 5V
(wireless: supplied from two R6 (AA size) batteries; wired: supplied from the VTR)
Power consumption: 0.2W

Connector: Special mini
Dimensions: Approx.
65 (W) × 18 (H) × 150 (D) mm
($2^5/_8 \times 2^3/_{32} \times 6$ inches)
Mass: Approx.
105 g (4 oz) (excluding batteries)
Recommended VTR:
VO-8800P/7630/9600P
VP-7040/9000P
Supplied accessories:
Receiver
5 m cable
R6 (AA size) battery (2)

## AH-8800

### Carrying handle for VO-8800P

Mass: 370 g (13 oz)



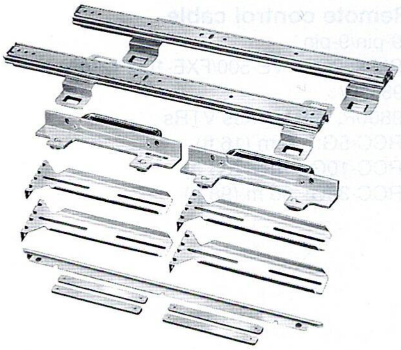
## LC-8800

### Soft carrying case for VO-8800P

## RMM-501

### Rack mount kit

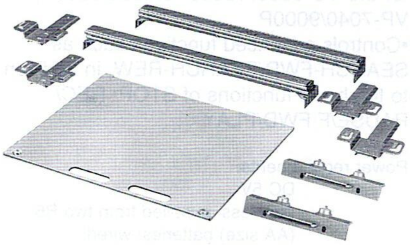
- Rack mount kit for use in mounting VO-9850P/9800P into 19-inch rack



## RMM-507

**Rack mount kit**

- Rack mount kit for use in mounting VO-9600P/7630 and VP-9000P/7040 into 19-inch rack



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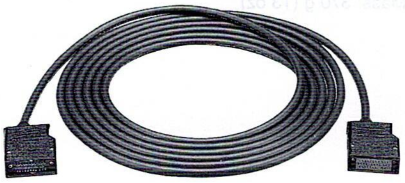
## RCC-5F

**Remote control cable**

- 33-pin/33-pin, 5 m (16.4 ft)
- RM-450CE/500/555/580gType-7/9 VTRs



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## RCC-15FT

**Remote control extension cable**

- 33-pin/33-pin, 15 m (49.2 ft)
- RM-450CE/500/555/580gAll Type-7/9 VTRs

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## RCC-G cables

**Remote control cable**

- 9-pin/9-pin
- RM-450CE/PVE-500/FXE-100P↔VO-9850P/
  9800P, BVU series VTRs
- RCC-5G: 5 m (16 ft)
  RCC-10G: 10 m (33 ft)
  RCC-30G: 30 m (98 ft)

## VTR accessory combinations

○Recommendable △Usable

| | | VO-9800P | VO-9850P | VP-9000P | VO-9600P | VP-7040 | VO-7630 | VO-8800P | BVU series |
|---|---|---|---|---|---|---|---|---|---|
| Remote controller and peripherals | RM-450CE | ○ | ○ | | | | | | ○ |
| | RM-500 | △<br>with BKU-703A | △<br>with BKU-703A | △ | △ | △<br>with BKU-702 | △ | | |
| | RM-580 | △<br>with BKU-703A | △<br>with BKU-703A | ○ | ○ | ○<br>with BKU-702 | ○ | | |
| | RM-770 | | | ○ | ○ | ○ | ○ | ○ | |
| | RM-555 | △<br>with BKU-703A | △<br>with BKU-703A | ○ | ○ | ○<br>with BKU-702 | ○ | | |
| | BKU-701 | | | ○ | ○ | ○ | ○ | | |
| | BKU-702 | | | | | ○ | | | |
| | BKU-703A | ○ | ○ | | | | | | |
| | BKU-704 | ○ | △ | | | | | | |
| | BKU-705 | | ○ | | | | | | |
| | BKU-706 | | | | | | | ○ | |
| Others | RMM-501 | ○ | ○ | | | | | | ○<br>BVU-900 series only |
| | RMM-507 | | | ○ | ○ | ○ | ○ | | |
| | AH-8800 | | | | | | | ○ | |
| | LC-8800 | | | | | | | ○ | |

# 3-5 U-matic VTR videocassette tapes

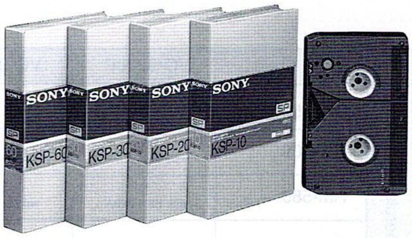
## KSP series

### Videocassette tapes

- •For the SP U-matic videocassette tape recorder VO-9850P/9800P/9600P
- •Can be used with conventional U-matic VTRs
- •SP mode recording can be activated via the detection holes on the back of the cassette

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| **KSP-60** | 60 | 358 (1,174) | 855 (1.88) |
| **KSP-30** | 30 | 186 (610) | 745 (1.64) |
| **KSP-20** | 20 | 129 (423) | 695 (1.53) |
| **KSP-10** | 10 | 72 (236) | 645 (1.42) |
| **KSP-5** | 5 | 43 (141) | 630 (1.39) |

*With case



## KSP-S series

### Videocassette tapes

- •For the SP U-matic videocassette tape recorder VO-9850P/9800P/9600P
- •Can be used with the portable U-matic recorder VO-8800P, and the conventional U-matic VTRs
- •SP mode recording can be activated via the detection holes on the back of the cassette

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| **KSP-S20** | 20 | 129 (423) | 525 (1.16) |
| **KSP-S10** | 10 | 72 (236) | 475 (1.05) |

*With case

SONY
SONY
SONY
SONY
KSP-S20

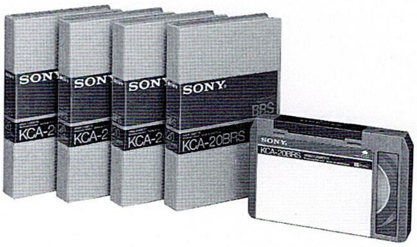
## KCA BRS series

### Videocassette tapes

- •Regular size U-matic videocassette that offers improved video and audio characteristics (with hard case)

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| **KCA-60BRS** | 60 | 358 (1,174) | 855 (1.88) |
| **KCA-30BRS** | 30 | 186 (610) | 745 (1.64) |
| **KCA-20BRS** | 20 | 129 (423) | 695 (1.53) |
| **KCA-10BRS** | 10 | 72 (236) | 645 (1.42) |
| **KCA-5BRS** | 5 | 43 (141) | 630 (1.39) |

*With case



## KCS BRS series

### Videocassette tapes

- •For Sony U-matic portable videocassette tape recorder VO-8800P series for improved video and audio characteristics
- •Can be used with regular U-matic VTRs

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| **KCS-20BRS** | 20 | 192 (423) | 525 (1.16) |
| **KCS-10BRS** | 10 | 72 (236) | 475 (1.05) |

*With case

SONY
BRS
KCS-20BRS

## KCS-1CL

**Head cleaning videocassette tape**

- For all types of U-matic videocassette tape recorder

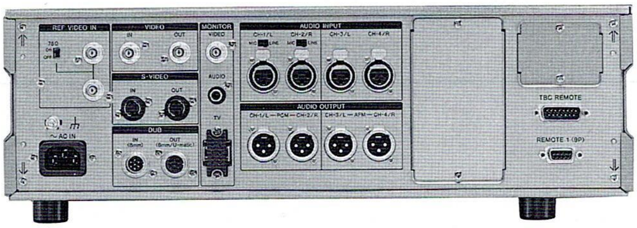
SONY
cleaning
KCS-1CL

## EVO-9850P

**video Hi8**

### Hi8 videocassette editing recorder/player

•Video Hi8 format for excellent picture quality: 400TV lines •Full editing capability: assemble and insert (Video/PCM-1/PCM-2/Time Code) editing mode •Built-in TBC (8-bit, 4fsc)—controlled from the optional remote control unit •Digital NR (chrominance and luminance noise reducer) •Frame accurate time code based editing capability: 0 frame accuracy •Quick response mechanism •EBU time code IN/OUT interface (optional) •Built-in 8 mm time code generator/reader •PCM digital and AFM stereo audio recording systems •JOG/SHUTTLE dial for picture search •Dial menu operation •9-pin remote connector (RS-422A) •PCM audio monitoring capability in the JOG search mode •Sony 33-pin remote interface (BKU-703A: Optional) •8 mm DUB IN/OUT (7-pin) connectors •U-matic DUB OUT (7-pin) connector—use the 8 mm DUB OUT connector in common •S-VIDEO IN/OUT connectors •19-inch rack mountable (with RMM-980), 3-unit high



| | |
|---|---|
| Supplied accessories: | V8-25CLH cleaning videocassette<br>Operation manual |
| Optional accessory: | EBU time code IN/OUT board EVBK-110<br>33-pin editing interface BKU-703A<br>TBC remote control unit UVR-60P<br>Rack mount kit RMM-980<br>9-pin remote cable RCC-5G/10G/30G<br>33-pin remote cable RCC-5F<br>U-matic dubbing cable VDC-5A |

## Specifications

**General**

| | |
|---|---|
| Mass: | 13.0 kg (28 lb 10 oz) |
| Dimensions: | 424 (W) × 147 (H) × 452 (D) mm<br>($16\frac{3}{4} \times 5\frac{7}{8} \times 17\frac{3}{4}$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 60W |
| Operationg temperature: | 5 to 40°C (41 to 104°F) |
| Videocassette: | Sony E5-HMEX, E5-HMEAD, P5-HMPX |
| Tape speed: | 20.05mm/s |
| REC and PB time: | Approx. 90min (with E5-90/P5-90) |
| FF/REW time: | Approx. 3min (with E5-90/P5-90) |
| Search speed: | SHUTTLE mode: STILL<br>FORWARD: 1/20, 1/10, 1/5, 1/2, 1, 3, 9, 13 times normal speed<br>REVERSE: 1/20, 1/10, 1/5, 1/2, 1, 3, 7, 13 times normal speed |

**Video**

| | |
|---|---|
| Video recording system: | Two rotary heads and a flying erase head helical scanning FM system |
| Video signal system: | CCIR monochrome/PAL colour |
| Input: | |
| PAL composite video: | BNC connector<br>1.0Vp-p ±0.3V, 75Ω, unbalanced, sync negative |
| Y/C: | Mini DIN 4-pin<br>Y: 1.0Vp-p ±0.3V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| 8 mm DUB IN: | 7-pin connector |
| REF IN: | Loop-through BNC connector |
| Output: | |
| PAL composite: | BNC connector<br>1.0Vp-p ±0.2V, 75Ω, unbalanced, sync negative |
| Y/C: | Mini DIN 4-pin<br>Y: 1.0Vp-p (0.2V, 75Ω)<br>C: 0.3Vp-p, at butst level, 75Ω, unbalanced |
| 8 mm/U-matic DUB OUT: | 7-pin connector |
| TV OUT: | 8-pin connector |
| Horizontal resolution: | Hi8 mode (HME): 400TV lines |
| S/N ratio: | Hi8 mode: better than 45dB |
| REMOTE: | RS-422A × 1 (9-pin)<br>TBC REMOTE × 1 (D-sub 15-pin) |

**Audio**

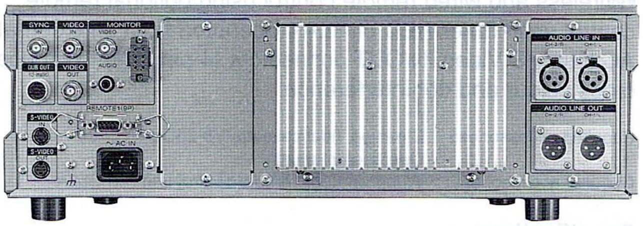
| | |
|---|---|
| Input (0dBu = 0.775Vrms): | |
| | Line: +4dBu, more than 10kΩ, balanced<br>Mic: –60dBu, more than 3kΩ, balanced |
| Output (0dBu = 0.775Vrms): | |
| | Line: +4dBu (at 600Ω) balanced<br>Headphones: –26dBu to –46dBu (at 8Ω), unbalanced |
| Frequency response: | PCM: 20Hz to 15kHz |
| Dynamic range: | PCM: better than 80dB |

## EVO-9800P

**video Hi8**

### Video Hi8 recorder/player

•Video Hi8 format for improved picture quality: 400TV lines •Video Hi8 and standard 8 mm format recording/ playback capability •Video Hi8 tape for Hi8 recording and high picture quality •Built-in Digital Chrominance Noise Reducer (Digital CNR) for improving chrominance S/N ratio and providing minimum jitter •PCM (Pulse Code Modulation) digital stereo and AFM (Audio Frequency Modulation) recording systems •U-matic DUB OUT connector for direct connection to the U-matic VTR via the VDC-5A dubbing cable to minimize picture degradation •Built-in 8 mm time code generator/ reader •8 mm time code insertion or after recording capability •Dial Menu Operation via the search dial for user convenience: Display of time code character on the monitor screen, Setting preroll time, etc. •Shuttle Dial for high speed picture search: STILL, 1/30, 1/10, 1/5, 1/3, 1, 2, 9, 15 times normal speed in the forward and 1/30, 1/10, 1/5, 1/3, 1, 3, 7, 13 times normal speed in the reverse direction •Jog Dial for precise frame by frame picture search •9-pin REMOTE interface for connection with RM-450CE Editing Control Unit •BKU-703A 33-pin Editing Interface (optional) for editing operation with the RM-440 •Audio XLR connectors •Compact size and 19-inch rack mountable: with RMM-980 Rack Mount Kit (3 Unit)



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operation manual |
| Optional accessories: | 33-pin editing interface BKU-703A<br>Rack mount kit RMM-980<br>9-pin remote cable RCC-5G/10G/30G<br>33-pin remote cable RCC-5F<br>U-matic dubbing cable VDC-5A |

### Specifications

| | |
|---|---|
| **General** | |
| Mass: | 14.0 kg (30 lb 14 oz) |
| Dimensions: | 424 (W) × 147 (H) × 452 (D) mm<br>($16^{3}/_{4} \times 5^{7}/_{8} \times 17^{3}/_{4}$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 50W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Videocassette: | Sony E5-HMEX, E5-HMEAD, P5-HMPX videocassette |
| Tape speed: | 20.05mm/s |
| REC or PB time: | 90min with E5-90 tape |
| Recording and playback format: | Video Hi8 and standard 8 mm format |
| **Video** | |
| Video recording system: | Two rotary heads and a flying erase head helical scanning FM system |
| Video signal system: | CCIR monochrome/PAL colour |
| Input: | 1.0Vp-p, sync negative, 75Ω, unbalanced<br>S connector (Mini DIN 4-pin):<br>Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| Output: | 1.0Vp-p, sync negative, 75Ω, unbalanced<br>S connector (Mini DIN 4-pin):<br>Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| Horizontal resolution: | Video Hi8 mode: 400TV lines |
| S/N ratio: | Video Hi8 mode: better than 45dB |
| **Audio** | |
| Input: | LINE: CH-1/CH-2 (XLR 3-pin, female): +4dBu, 10kΩ, balanced<br>Microphone: –60dBu, 4.3kΩ, unbalanced<br>Phono: –7.5dBu, 47kΩ, unbalanced |
| Output: | LINE: CH-1/CH-2 (XLR 3-pin, male): +4dBu, 10kΩ, balanced |
| Frequency response: | 20Hz to 15kHz |
| Dynamic range: | PCM: better than 85dB |

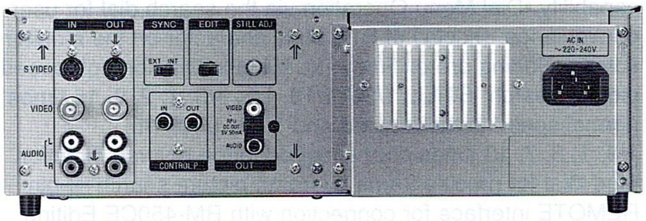
## EVO-9500P

**video Hi8**

### Video Hi8 recorder/player

•Video Hi8 format for improved picture quality: 400TV lines •Video Hi8 and standard 8 mm format recording/ playback capability •Video Hi8 tape for Hi8 recording and high picture quality •PCM (Pulse Code Modulation) digital stereo and AFM (Audio Frequency Modulation) recording systems •Auto repeat function •Clear still and slow motion pictures thanks to Dual Azimuth 4-head design •Control P terminals for multiple VTR operation •Additional audio recording on the PCM sound track •Built-in 8 mm time code capability: 8 mm time code generator/reader, time code insertion •Wireless and wired remote control using optional remote control unit •Timer REC or PLAY operation from an external AC timer •S Video IN/OUT connectors (4-pin DIN) to reduce cross colour and dot interference

SONY
video Hi8
Hi8
EVO-9500P



| | |
|---|---|
| Supplied accessories: | Cleaning videocassette V8-25CLH<br>Operation manual |
| Optional accessories: | Wired/wireless remote control unit RM-S52A |

### Specifications

**General**

| | |
|---|---|
| Mass: | 6.5 kg (14 lb 5 oz) |
| Dimensions: | 355 (W) × 116 (H) × 387 (D) mm<br>($14 \times 4\frac{5}{8} \times 15\frac{1}{4}$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 25W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Videocassette: | Sony E5-HMEX, E5-HMEAD, P5-HMPX videocassette |
| Tape speed: | 20.05mm/s |
| REC or PB time: | 90min with E5-90 tape |
| Recording and playback format: | Video Hi8 and standard 8 mm format |

**Video**

| | |
|---|---|
| Video recording system: | Two rotary heads and a flying erase head helical scanning FM system |
| Video signal system: | CCIR monochrome/PAL colour |
| Input: | 1.0Vp-p, sync negative, 75Ω, unbalanced<br>S connector (Mini DIN 4-pin):<br>Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| Output: | 1.0Vp-p, sync negative, 75Ω, unbalanced<br>S connector (Mini DIN 4-pin):<br>Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| Horizontal resolution: | Video Hi8 mode: 400TV lines |
| S/N ratio: | Video Hi8 mode: better than 45dB |

**Audio**

| | |
|---|---|
| Input: | Microphone: –60dBu, 3kΩ, unbalanced<br>Phono: –7.5dBu, 47kΩ, unbalanced |
| Output: | Phono: –7.5dBu, 22kΩ, unbalanced |
| Frequency response: | 20Hz to 15kHz |
| Dynamic range: | PCM: better than 85dB |

## EVV-9000P

**videoHi8**

### Video Hi8 recorder unit

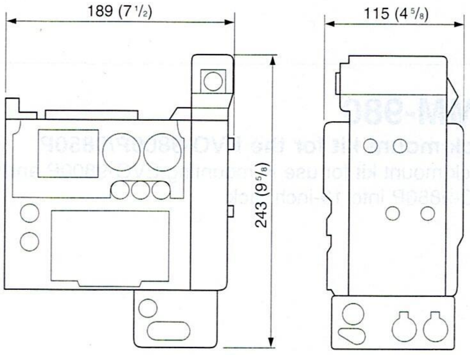
•Compact and lightweight camcorder by connecting to Sony 3-CCD colour video camera DXC-327BP/637P/D30P •Video Hi8 format for improved picture quality: 400TV lines •Video Hi8 and standard 8 mm format recording/playback capability •Video Hi8 tape for Hi8 recording and high picture quality •Y/C separate input via 50-pin DIN to reduce cross colour •PCM (Pulse Code Modulation) digital stereo and AFM (Audio Frequency Modulation) recording systems •XLR balanced audio connectors for stable signal transmission •MIC/LINE input selectable •Built-in 8 mm time code generator •Warning indications for reliable operation •REC REVIEW function convenient for confirmation of recording •Low power consumption of 7.5W •LCD window: indication of time code, warnings, etc. •Built-in earspeaker for audio monitoring •RF out

| | |
|---|---|
| Supplied accessories: | Shoulder strap<br>Guide for attaching shoulder strap<br>Metal mount for attaching shoulder strap<br>V8-25CLH cleaning cassette<br>Operation manual |
| Optional accessories: | 3-chip CCD colour video camera DXC-327BP/637P/D30P<br>VTR adaptor VA-90P<br>Rechargeable battery NP-1B<br>Battery charger BC-1WDCE<br>Camera adaptor CMA-8ACE<br>AC power cable CCQX-3 |

## Specifications

| | |
|---|---|
| **General** | |
| Mass: | 1.8 kg (4 lb) |
| Dimensions: | 115 (W) × 243 (H) × 189 (D) mm<br>($4\,^{5}/_{8} \times 9\,^{5}/_{8} \times 7\,^{1}/_{2}$ inches) |
| Power requirements: | DC 12V |
| Power consumption: | 7.5W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Videocassette: | Sony E5-HMEX, E5-HMEAD, P5-HMPX videocassette |
| Tape speed: | 20.05mm/s |
| REC or PB time: | 90min with E5-90 tape |
| Recording and playback format: | Video Hi8 and standard 8 mm format |
| **Video** | |
| Video recording system: | Two rotary heads and a flying erase head helical scanning FM system |
| Video signal system: | CCIR monochrome/PAL colour |
| Input: | Y: 1.0Vp-p ±0.1V, 75Ω, unbalanced, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω, unbalanced |
| Output: | 1.0Vp-p, sync negative, 75Ω, unbalanced |
| Horizontal resolution: | Video Hi8 mode: 400TV lines |
| S/N ratio: | Video Hi8 mode: 44dB |
| **Audio** | |
| Input: | Microphone: –60dBu, 3kΩ, balanced<br>LINE: +4dBu, 10kΩ, balanced |
| Output: | Phono: –10dBu, 47kΩ, unbalanced |
| Frequency response: | 20Hz to 15kHz |
| Dynamic range: | PCM: better than 80dB |

**Dimensions**



Unit: mm (inch)

# 4-2 Hi8 VTRs accessories

## UVR-60P

### TBC Remote controller

- Designed to control the Betacam SP studio VTR/DSR-85P/DSR-80P/DSR-60P/ EVO-9850P/SVO-5800P/SVP-5600P built-in TBCs
- 19-inch rack mountable: Can be installed individually with the supplied blank panel or with another UVR-60P

Power requirements:
DC 12V, 9V (supplied from VTR)
Power consumption: 840mmW
Mass: 1.3 kg (2 lb 13 oz)
Dimension: 215 (W) × 44 (H) × 101 (D) mm
($8^{1}/_{2} \times 1^{3}/_{4} \times 4$ inches)

Supplied accessories:
Remote control cable (5 m)
Rack mount bracket
Blank panel
Screw
Operation manual

SONY
PRESET
PRESET
PRESET
PRESET
PRESET
NOISE REDUCTION
FREEZE
VIDEO
CHROMA
BLACK LEVEL
BURST/CHROMA
DELAY
SYNC PHASE
SC PHASE
REMOTE CONTROL UNIT UVR-60P

## VA-90P

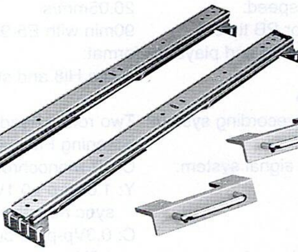
### VTR adaptor

- Can be directly attached to the EVV-9000P video Hi8 recorder to be operated as a portable VTR
- CCQ type (14-pin) connector for high quality video/audio recording
- S-VIDEO IN for high quality video recording
- Digital Y/C separator to achieve high quality video recording for composite video signals
- Audio input level selectable –20dB/–60dB

## RMM-980

### Rack mount kit for the EVO-9800P/9850P

- Rack mount kit for use in mounting EVO-9800P and EVO-9850P into 19-inch rack



## EVW-300P

video Hi8

### Video Hi8 3-CCD one-piece camcorder

•Complete one-piece Hi8 camcorder •Compact and light weight: 5.6 kg (12 lb 5 oz) including VF/lens/battery videocassette •Video Hi8 format for high quality pictures •PCM (Pulse Code Modulation) digital stereo and AFM (Audio Frequency Modulation) recording systems •High S/N ratio: 58dB (camera head) •High sensitivity: F8.0 at 2000 lx •High resolution: 700TV lines (camera portion) •Programmable gain up (0 to 18dB) •ATW (Auto Tracing White Balance) •Total Level Control System provides optimum adjutants for any lighting conditions: AGC (Automatic Gain Control), CCD AE (Auto Exposure) and Intelligent Auto Iris •Safety zone and Centre Marker indication in the view finder •Two memories for white balance value •×13 zoom lens: VCL-713BX (supplied with the EVW-300PK) •1/2 -inch bayonet mount •Variable speed electronic shutter •Clear Scan function (50 to 200Hz) •Camera gen-lock capability •Built-in 8 mm time code: REGEN/PRESET, REC-RUN/FREE-RUN, USER BIT •Quick-start recording (less than 0.8s from STBY to REC) •EDIT SEARCH function •Long operation time: more than 90min with a single NP-1Bbattery •Low power consumption:14.9W (REC mode)

### Specifications

**General**

| | |
|---|---|
| Mass (including NP battery, VF, zoom lens, Hi8 videocassette): | 5.6 kg (12 lb 5 oz) |
| Power requirements: | DC 12V |
| Power consumption: | 14.9W (REC mode) |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Videocassette: | Sony E5-HMEX, E5-HMEAD, P5-HMPX series or equivalent |
| Tape speed: | 20.05mm/s |
| Continuous operation time: | Approx. 90min with an NP-1B |
| REC/ PB time: | Approx. 90min (with P5-90) |

**Camera portion**

| | |
|---|---|
| Image device: | 1/2-inch Interline-Transfer CCD |
| Optics: | F1.4 medium index prism system |
| Picture elements: | 752 × 582 (H/V) |
| Sensing area | 6.4 mm × 4.8 mm |
| Built-in filters: | 1: 3200K, 2: 5600K +1/16 ND 3: 5600K |

**Video**

| | |
|---|---|
| Lens mount | 1/2-inch bayonet mount |
| Video signal system: | PAL |
| Scanning system: | 2:1 interlaced, 625 lines |
| Horizontal frequency: | 15.625kHz |
| Vertical frequency | 50Hz |
| Horizontal resolution: | 700TV lines |
| Minimum illumination: | 7.5 lx with F1.4, +18dB |
| Sensitivity: | F8.0 at 2000 lx |
| Gain selection: | OFF (0dB), MID (1dB to 17dB),<br>HIGH (2dB to 18dB),<br>AGC (0dB to 18dB variable) |
| Shutter speed selection: | OFF (1/60), 1/100, 1/250, 1/500, 1/1000, 1/2000s |
| Clear Scan range: | 50Hz to 200Hz |
| S/N ratio: | 58dB |
| Registration: | 0.05% (all zones, without lens) |
| Geometric distortion: | Below measurable level |

**VTR Portion**

**Video**

| | |
|---|---|
| Video recording system: | Rotary 2-Head helical scan system |
| Output: | PAL composite: 1.0Vp-p, 75Ω, sync negative<br>S-VIDEO: Y: 1.0Vp-p, 75Ω, sync negative,<br>C: 0.3Vp-p, at burst level, 75Ω |
| Horizontal resolution: | 400TV lines |
| S/N ratio: | 44dB |

**Audio**

| | |
|---|---|
| Audio recording system: | Rotary 2-Head helical scan system |
| Input (XLR-3-pin, female): | MIC: –60dBu, 3kΩ, balanced<br>LINE: +4dBu, 10kΩ, balanced |
| Output: | Phono: –10dBu, 47kΩ, unbalanced |
| Frequency response: | 20Hz to 15kHz (PCM) |
| Dynamic range: | Better than 80dB (PCM) |

**Viewfinder**
**DXF-501CE**

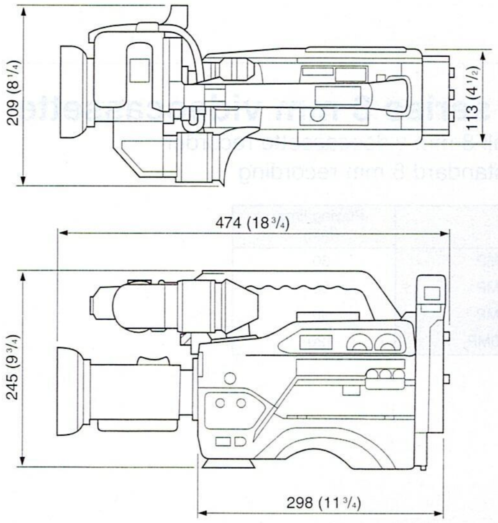
| | |
|---|---|
| Picture tube: | 1.5-inch monochrome |
| Indicators: | REC/TALLY/BATT/SHUTTER/GAIN UP |
| Resolution: | 550TV lines |
| Power requirements: | DC 12V |
| Power consumption: | 2.3W |
| Mass: | 500 g (1 lb 2 oz) |
| Dimensions: | Approx. 182 (W) × 64 (H) × 189 (D) mm<br>($7^{1}/_{4}$ × $2^{5}/_{8}$ × $7^{1}/_{2}$ inches) |

**Zoom lens**
**VCL-713BX**

| | |
|---|---|
| Focal length: | 7.5 to 97.5 mm |
| Zoom ratio: | ×13 |
| Zoom control: | Manual/ Motorized |
| Maximum aperture ratio | 1: 1.4 |
| Iris control Manual/ Auto selectable: | F1.4 to F16 and C (close) |
| Range of object field (at the distance of 1.1 metre): | W (wide angle): 785 × 589 mm (31 × 231/4 inches)<br>T (telephoto): 61.7 × 46 mm ($2^{1}/_{2}$ × $1^{7}/_{8}$ inches) |
| Minimum object distance: | 1.0 mm |
| Filter thread | 72 mm P = 0.75 |
| Mount: | 1/2-inch bayonet mount |
| Mass: (with lens hood): | Approx. 950g (2 lb 1 oz) |
| Dimensions (ø × L): | Approx. 113 × 177 mm ($4^{1}/_{2}$ × 7 inches) |

| MODEL<br>COMPONENT | EVW-300PK | EVW-300PL |
|---|---|---|
| 3-CCD colour video camera | EVW-300P | EVW-300P |
| 1.5-inch viewfinder | DXF-501CE | DXF-501CE |
| 1/2-inch mount zoom lens | VCL-713BX | Optional |
| EVV-9000P VTR portion | — | — |
| Tripod adaptor | Supplied (VCT-12) | Supplied (VCT-12) |
| Carrying case | Optional (LC-422) | Optional (LC-422) |
| Shoulder strap | Supplied | Supplied |
| Operation manual | Supplied | Supplied |

**Dimensions**
**EVW-300P**



unit: mm (inch)

# 4-4 Hi8/8 mm videocassette tapes

## Hi8 HMEAD Series 8 mm videocassette

- Metal evaporated tape for Hi8 recording
- DLC(Diamond Like Carbon) protective coating for higher durability
- Ideal for both original acquisition and for editing and repeated playback
- Excellent picture quality

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| E5-30HMEAD | 30 | 39 (128) | 78 (0.172) |
| E5-60HMEAD | 60 | 75 (246) | 82 (0.181) |
| E5-90HMEAD | 90 | 111.5 (366) | 86 (0.189) |

*With case

SONY
Hi8 Editor
DLC
E5-30
E5-60
E5-90

## Hi8 HMEX series 8 mm videocassette

- Metal evaporated Hi8 HMEAD seires lated Tape for Hi8 recording
- For maximizing Hi8 performance
- Hi8 mode recording can be activated via the detection holes on the back of the cassette
- Rugged, pro-type album case

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| E5-30HMEX | 30 | 39 (128) | 78 (0.172) |
| E5-60HMEX | 60 | 75 (246) | 82 (0.181) |
| E5-90HMEX | 90 | 111.5 (366) | 86 (0.189) |

*With case

SONY
Hi8
PRO ME
E5-60

## Hi8 HMPX series 8 mm videocassette

- Metal particle tape for Hi8 recording
- Hi8 mode recording can be activated via the detection holes on the back of the cassette
- Rugged, pro-type album case

| Model | Playing time (min) | Tape length m (ft) | Mass* g (lb) |
|---|---|---|---|
| P5-30HMPX | 30 | 39 (128) | 80 (0.175) |
| P5-60HMPX | 60 | 75 (246) | 85 (0.187) |
| P5-90HMPX | 90 | 111.5 (366) | 90 (0.198) |

*With case

SONY
Hi8
PRO MP
P5-60

## MP series 8 mm videocassette

- For all 8 mm videocassette recorder
- For standard 8 mm recording

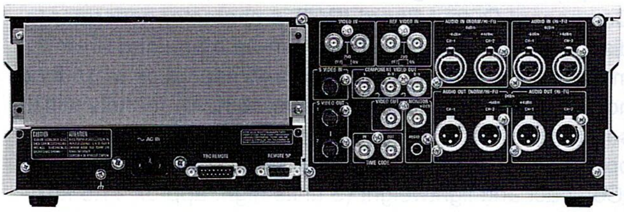
| Model | Playing time (min) |
|---|---|
| P5-30MP | 30 |
| P5-60MP | 60 |
| P5-90MP | 90 |
| P5-120MP | 120 |

SONY
Video 8
MP
High Quality & Durability
PAL 90

## SVO-5800P

### S-VHS editing recorder

•Superb picture quality with S-VHS recording format and high quality signal processing techniques such as Digital Noise Reducer, Digital Field Dropout Compensator, Digital 3-line Comb Filter and newly developed Chroma Process Improvement •Built-in Time Base Corrector •Four channel audio recording system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Frame accurate full editing functions (Assemble, video/audio insert and audio split) •Back space editing capability •Built-in EBU standard LTC/VITC time code generator/reader •Optional UVR-60P TBC Remote Controller •Field freeze function with the optional UVR-60P or SVRM-100A Remote Control Unit •RS-422A 9-pin interface •Automatic edit select system •Automatic S-VHS record mode •S-video signal IN/OUT •Composite video signal IN/OUT •Y/R-Y/B-Y component video signal OUT with the optional SVBK-170P Component Output Board •Built-in character generator to display VTR status, time code, set-up menu and error message •Quick and smooth picture search up to 15 times normal speed in forward and reverse •User friendly initial set-up menu for a variety of customized VTR mode operations •Cue up point preset •Auto head cleaner •Compact and lightweight (3 units high, approx 11.5 kg), 19-inch rack mountable •Very low power consumption (60W)



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operation manual |
| Optional accessories: | Component output board SVBK-170P<br>Remote control unit SVRM-100A<br>TBC remote controller UVR-60P<br>Rack mount kit RMM-980<br>Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m)<br>S-video cable SYC-2/5 (2 m/5 m) |

## Specifications

**General**

Mass: 11.5 kg (25 lb 6 oz)

Dimensions: 425 (W) × 145 (H) × 457 (D) mm (16³/₄ × 5³/₄ × 18 inches)

Power requirements: AC 220 to 240V, 50Hz, 3 wire grounded receptacle

Power consumption: 60W

Operating temperature: 5 to 40°C (41 to 104°F)

Tape speed: 23.39 mm/s

Tape format: S-VHS or VHS

F FWD and REW time: Approx. 2.5min (with SE-180)

Search speed (with optional SVRM-100A)[*1]:
SHUTTLE: STILL, 1/10[*2], 1/5, 1/2, 1, 2, 5, 15 times normal speed, forward and reverse
JOG: Frame by frame, forward and reverse

**Video**

Video signal system: PAL (colour)/ CCIR (monochrome)

Video recording system: Rotary two-head helical scanning FM system

Input:
REF VIDEO IN (BNC × 2, loop-through):
Black burst or 1.0Vp-p, 75Ω, unbalanced, sync negative
COMPOSITE IN (BNC × 2, loop-through):
1.0Vp-p, 75Ω, unbalanced, sync negative
S-VIDEO IN (Mini DIN 4-pin):
Y; 1.0Vp-p, 75Ω, unbalanced, sync negative
C; 0.3Vp-p (burst), 75Ω, unbalanced

Output:
COMPOSITE OUT (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative
S-VIDEO OUT (Mini DIN 4-pin × 2):
Y; 1.0Vp-p, 75Ω, unbalanced, sync negative
C; 0.3Vp-p (burst), 75Ω, unbalanced
COMPONENT OUT (BNC × 3, with optional SVBK-170P):
Y; 1.0Vp-p, 75Ω, unbalanced, sync negative
R-Y; 0.7Vp-p, 75Ω, unbalanced
B-Y; 0.7Vp-p, 75Ω, unbalanced
VIDEO MONITOR OUT (Super) (BNC):
1.0Vp-p, 75Ω, unbalanced, sync negative

Horizontal resolution: VHS: More than 240TV lines
S-VHS: More than 400TV lines

S/N ratio: More than 46dB (in S-VHS/VHS mode)

**Audio**

Input:
Normal CH-1/2 (XLR): +4/0/–6dBm selectable, 600Ω, balanced
Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable, 600Ω, balanced

Output:
Normal CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced
Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced
AUDIO MONITOR OUT (PIN): –5dBu, at 47kΩ load, unbalanced
HEAD PHONE OUT (STEREO PHONE):
–50 to –18dBu at 8Ω load unbalanced

S/N ratio (Normal audio at 3% distortion, Dolby OFF):
More than 43dB

Frequency response: Normal: 50Hz to 12kHz
Hi-Fi: 20Hz to 20kHz

Dynamic range: More than 90dB (in Hi-Fi mode)

**Others**

TIME CODE IN (BNC): 0dBu ±6dB, 10kΩ, unbalanced (0dBu=1.55Vp-p PULSE)

TIME CODE OUT (BNC): 0dBu ±3dB at 10kΩ load, unbalanced (0dBu=1.55Vp-p PULSE)

**Remote**

TBC REMOTE: 15-pin multi

REMOTE: 9-pin multi, RS-422A standards

WIRED SIRCS: Control-S (Power supplied type)

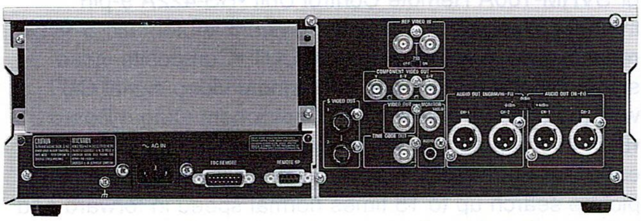
[*1] Without the SVRM-100A attached, search speed is conducted at ±15 times normal speed by continuously pushing the F FWD or REW button.

[*2] When controlled from an RS-422A equipped editing controller, the minimum search speed is achieved at ±1/20 times normal speed.

## SVP-5600P

### S-VHS editing player

•Superb picture quality with S-VHS recording format and high quality signal processing techniques such as Digital Noise Reducer, Digital Field Dropout Compensator, Digital 3-line Comb Filter and newly developed Chroma Process Improvement •Built-in Time Base Corrector •Four channel audio playback system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Built-in EBU standard LTC/VITC time code reader •Optional UVR-60P TBC Remote Controller •Field freeze function with the optional UVR-60P or SVRM-100A Remote Control Unit •RS-422A 9-pin interface •S-video signal OUT •Composite video signal OUT •Y/R-Y/B-Y component video signal OUT with the optional SVBK-170P Component Output Board •Built-in character generator to display VTR status, time code, set-up menu and error message •Quick and smooth picture search up to 15 times normal speed in forward and reverse •User friendly initial set-up menu for a variety of customized VTR mode operations •Cue up point preset •Auto head cleaner •Compact and lightweight (3 units high, approx 11.5 kg), 19-inch rack mountable •Very low power consumption (53W)



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operation manual |
| Optional accessories: | Component output board SVBK-170P<br>Remote control unit SVRM-100A<br>TBC remote controller UVR-60P<br>Rack mount kit RMM-980<br>Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m)<br>S-video cable SYC-2/5 (2 m/5 m) |

## Specifications

### General

| | |
|---|---|
| Mass: | 11.5 kg (25 lb 6 oz) |
| Dimensions: | 425 (W) × 145 (H) × 457 (D) mm<br>($16\frac{3}{4} \times 5\frac{3}{4} \times 18$ inches) |
| Power requirements: | AC 220 to 240V, 50Hz, 3 wire grounded receptacle |
| Power consumption: | 53W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Tape speed: | 23.39 mm/s |
| Tape format: | S-VHS or VHS |
| F FWD and REW time: | Approx. 2.5min (with SE-180) |
| Search speed (with optional SVRM-100A)*1: | SHUTTLE: STILL, 1/10*2, 1/5, 1/2, 1, 2, 5, 15 times normal speed, forward and reverse<br>JOG: Frame by frame, forward and reverse |

### Video

| | |
|---|---|
| Video signal system: | PAL (colour)/ CCIR (monochrome) |
| Input: | REF VIDEO IN (BNC × 2, loop-through): Black burst or 1.0Vp-p, 75Ω, unbalanced, sync negative |
| Output: | COMPOSITE OUT (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative<br>S-VIDEO OUT (Mini DIN 4-pin × 2):<br>Y; 1.0Vp-p, 75Ω, unbalanced, sync negative<br>C; 0.3Vp-p (burst), 75Ω, unbalanced<br>COMPONENT OUT (BNC × 3, with optional SVBK-170P):<br>Y; 1.0Vp-p, 75Ω, unbalanced, sync negative<br>R-Y; 0.7Vp-p, 75Ω, unbalanced<br>B-Y; 0.7Vp-p, 75Ω, unbalanced<br>VIDEO MONITOR OUT (Super) (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative |
| Horizontal resolution: | VHS: More than 240TV lines<br>S-VHS: More than 400TV lines |
| S/N ratio: | More than 46dB (in S-VHS/VHS mode) |

### Audio

| | |
|---|---|
| Output: | Normal CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced<br>Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced<br>AUDIO MONITOR OUT (PIN): –5dBu, at 47kΩ load, unbalanced |
| HEAD PHONE OUT (STEREO PHONE): | –50 to –18dBu at 8Ω load unbalanced |
| S/N ratio (Normal audio at 3% distortion, Dolby OFF): | More than 43dB |
| Frequency response: | Normal: 50Hz to 12kHz<br>Hi-Fi: 20Hz to 20kHz |
| Dynamic range: | More than 90dB (in Hi-Fi mode) |

### Others

| | |
|---|---|
| TIME CODE OUT (BNC): | 0dBu ±3dB at 10kΩ load, unbalanced (0dBu=1.55Vp-p PULSE) |

### Remote

| | |
|---|---|
| TBC REMOTE: | 15-pin multi |
| REMOTE: | 9-pin multi, RS-422A standards |
| WIRED SIRCS: | Control-S (Power supplied type) |

---

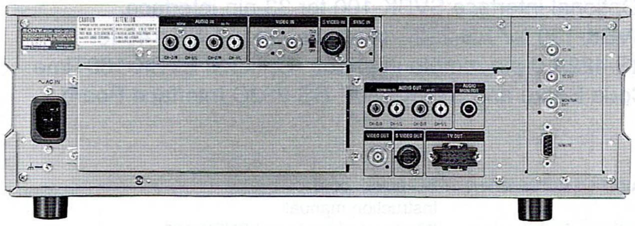
*1 Without the SVRM-100A attached, search speed is conducted at ±15 times normal speed by continuously pushing the F FWD or REW button.

*2 When controlled from an RS-422A equipped editing controller, the minimum search speed is achieved at ±1/20 times normal speed.

## SVO-9620 (PAL/NTSC$_{4.43}$)

### Recorder

•High quality SVHS picture and sound •PAL/NTSC$_{4.43}$ playback capability •Four channel audio recording system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Auto head cleaner to provide preventive care of the tape heads •Dial menu operations via the search dial for a variety of customized VTR mode settings •Recognizable colour pictures over a range of -1/30 to +5 (-10 to +10 with the optional DSRM-10) times normal speed in search mode; frame by frame picture search with the JOG dial •Programmed operation with MARK IN A and MARK IN B •Timer Rec and Play function for unattended operations •Sensor recording function •Audio dubbing function for additional audio, such as music or narration, recording •Error code and real time counter indication on the LED display •Optional remote control unit of SVRM-100A and RM-V200 •Optional interface: SVBK-100A for 33-pin interface, SVBK-120 for RS-232C interface, and SVBK-140 for RS-422A 9-pin remote interface •Optional boards: SVBK-150 Digital Noise Reducer, SVBK-160 Time Code Board, SVBK-180P RS-232C Interface Board



| | |
|---|---|
| Supplied Accessories: | AC power cord<br>Instruction manual |
| Optional Accessories: | 33-pin interface board SVBK-100<br>Computer interface board (RS-232C) SVBK-120<br>RS-422A interface board SVBK-140<br>Digital noise reducer SVBK-150<br>Time code board SVBK-160<br>RS-232C Interface board SVBK-180P<br>Remote control unit DSRM-10<br>Remote control unit RM-V200<br>Rack mount kit RMM-980 |

### Specifications

**General**

| | |
|---|---|
| Mass: | 14.0 kg (30 lb 14 oz) |
| Dimensions: | 424 (W) × 147 (H) × 452 (D) mm<br>($16^3/_4 \times 5^7/_8 \times 17^7/_8$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Less than 55W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| REC/PB mode: | SP |
| Tape Speed: | SP: 23. 39mm/s |
| Tape format: | S-VHS or VHS |
| F FWD and REW time: | Max. 2min (with SE-120) |

**Video**

| | |
|---|---|
| Video signal system: | PAL and NTSC$_{4.43}$ Colour |
| Video recording system: | Rotary two-head helical scanning FM system |
| Input: | BNC: 1.0Vp-p, 75Ω, sync negative<br>S-VIDEO: Mini DIN 4-pin<br>Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω |
| Output: | BNC: 1.0Vp-p, 75Ω, sync negative<br>S-VIDEO: Mini DIN 4-pin<br>Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω |
| Horizontal resolution: | More than 400TV lines (S-VHS)<br>More than 240TV lines (VHS) |
| S/N ratio: | 45dB (colour) |

**Audio**

| | |
|---|---|
| Input: | Phono: –6dBu, 47kΩ, unbalanced |
| Output: | Phono: –6dBu, 10kΩ, unbalanced |
| Monitor Output: | Phono: –5dBu, 10KΩ |
| Frequency response: | 50Hz to 12kHz (in normal mode)<br>20Hz to 20kHz (in Hi-Fi mode) |
| Dynamic range: | 90dB (in Hi-Fi mode) |

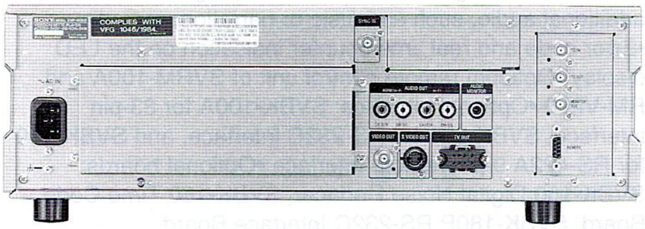
**Connectors**

| | |
|---|---|
| Video: | IN × 1 with loopthrough out (BNC)<br>OUT × 1 (BNC)<br>SYNC IN × 1 (BNC) |
| Audio: | Hi-Fi (AFM) IN × 2 (Phono)<br>NORMAL IN × 2 (Phono)<br>Hi-Fi (AFM) OUT × 2 (Phono)<br>NORMAL OUT × 2 (Phono)<br>Monitor OUT × 1 (Phono) |
| S VIDEO: | IN × 1 (Mini DIN 4-pin)<br>OUT × 1 (Mini DIN 4-pin) |
| TV connector: | OUT × 1 (8-pin) |

## SVP-9020 (PAL/NTSC$_{4.43}$)

### Player

•High quality SVHS pictuer and sound •PAL/NTSC$_{4.43}$ playback capability •Four channel audio playback system: two for Hi-Fi (AFM) and two for normal longitudinal audio •Doldy B type Noise Reducer for normal audio •Auto head cleaner to provide preventive care of the tape heads •Dial menu operation via the search dial for a vairiety of customize VTR mode setting •Recognizable colour pictures over a range of/10to +10 times normal speed in search mode;frame by frame pictuer search with the JOG dial •Programmed operation with MARK IN A and MARK IN B •TimerRec and Play function for nuattended operation •Error code and real time counter indication on the LED display •Optional remote contrrol unit of SVRM-100A and RM-V200 •Optional interface:SVBK-100 for 33-pin interface, SVBK-120 for RS-232C interface, and SVBK-140 for RS-422A 9-pin remote interface •Optional SVBK-160Time Code Board and SVBK-180P RS-232C Interface Board



| | |
|---|---|
| Supplied Accessories: | AC power cord<br>Instruction manual |
| Optional Accessories: | 33-pin interface board SVBK-100<br>Computer interface board (RS-232C) SVBK-120<br>RS-422A interface board SVBK-140<br>Digital noise reducer SVBK-150<br>Time code board SVBK-160 RS232C<br>Interface Board SVBK-180P<br>Remote control unit DSRM-10<br>Remote control unit RM-V200<br>Rack mount kit RMM-980 |

## Specifications

**General**

| | |
|---|---|
| Mass: | 14.0 kg (30 lb 14 oz) |
| Dimensions: | 424 (W) × 147 (H) × 452 (D) mm<br>(16$\frac{3}{4}$ × 5$\frac{7}{8}$ × 17$\frac{7}{8}$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Less than 55W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| REC/PB mode: | SP |
| Tape Speed: | SP: 23.39mm/s |
| Tape format: | S-VHS or VHS |
| F FWD and REW time: | Max. 2min (with SE-120) |

**Video**

| | |
|---|---|
| Video signal system: | PAL and NTSC$_{4.43}$ Colour |
| Video recording system: | Rotary two-head helical scanning FM system |
| Input: | BNC: 1.0Vp-p, 75Ω, sync negative<br>S-VIDEO: Mini DIN 4-pin<br>Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω |
| Output: | BNC: 1.0Vp-p, 75Ω, sync negative<br>S-VIDEO: Mini DIN 4-pin<br>Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω |
| Horizontal resolution: | More than 400TV lines (S-VHS)<br>More than 240TV lines (VHS) |
| S/N ratio: | 45dB (colour) |

**Audio**

| | |
|---|---|
| Output: | Phono: –6dBu, 10kΩ, unbalanced |
| Monitor Output: | Phono: –5dBu, 10KΩ |
| Frequency response: | 50Hz to 12kHz (in normal mode)<br>20Hz to 20kHz (in Hi-Fi mode) |
| Dynamic range: | 90dB (in Hi-Fi mode) |

**Connectors**

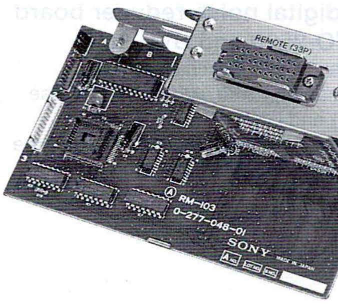
| | |
|---|---|
| Video: | OUT × 1 (BNC)<br>SYNC IN × 1 (BNC) |
| Audio: | Hi-Fi (AFM) IN × 2 (Phono)<br>NORMAL IN × 2 (Phono)<br>Monitor OUT × 1 (Phono) |
| S VIDEO: | OUT × 1 (Mini DIN 4-pin) |
| TV connector: | OUT × 1 (8-pin) |

## SVBK-100

**Sony 33-pin interface board for SVO-9620/9500MDP and SVP-9020**

- When this board installed, VTR functions can be remotely controlled via 33-pin parallel interface

Connector: 33-pin multi connector (1)
Parallel control signal
Dimensions: 168 (W) × 92 (H) × 60 (D) mm
($6^5/_8$ × $3^5/_8$ × $2^3/_8$inches)
Mass: 330 g (11 oz)

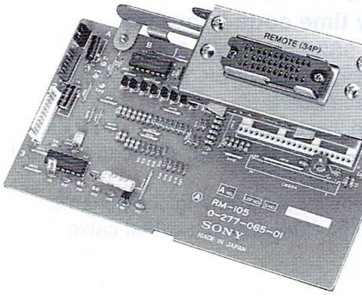

REMOTE (33P)
RM-103
0-277-048-01
SONY
MADE IN JAPAN

## SVBK-110

**Sony 34-pin interface board for SVO-9500MDP**

- When this board installed, the SVO-9500MDP can be integrated into the 34-pin based control system

Connector: 34-pin multi connector (1)
Parallel control signal
Dimensions: 168 (W) × 92 (H) × 60 (D) mm
($6^5/_8$ × $3^5/_8$ × $2^3/_8$inches)
Mass: 300 g (11 oz)

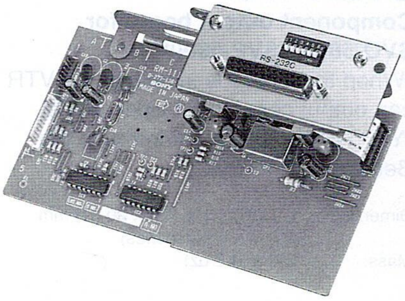

REMOTE (34P)
RM-105
0-277-065-01
SONY
MADE IN JAPAN

## SVBK-120

**Computer interface board for SVO-9620/9500MDP and SVP-9020**

- Provides RS-232C interface which enables direct control of a VTR from an external computer

Connector: D-sub 25-pin multi connector (1)
Parallel control signal
Dimensions: 168 (W) × 92 (H) × 60 (D) mm
($6^5/_8$ × $3^5/_8$ × $2^3/_8$inches)
Mass: 300 g (11 oz)

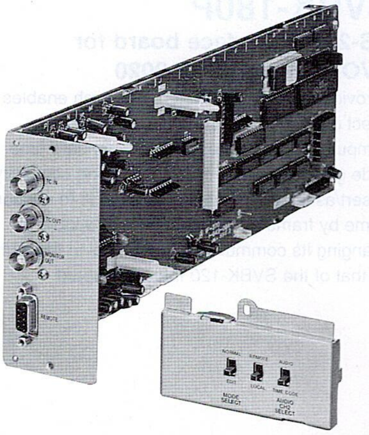

RS-232C
SONY
MADE IN JAPAN

## SVBK-140

**Sony RS-422A interface board for SVO-9620 and SVP-9020**

- By installing this board, the SVO-9620/SVP-9020 can be equipped with 9-pin REMOTE (RS-422A) interface to be configured into Sony's 9-pin based control system

Input/output connector:
TC IN: BNC × 1
0dB±6dB (0dB=1.55Vp-p)
10kΩ, unbalanced
TC OUT: BNC × 1
0dB±3dB, low impedance, unbalanced
MONITOR OUT: BNC × 1
Supplied accessories: Screw
Operation manual


TC IN
TC OUT
MONITOR OUT
REMOTE
MODE SELECT
AUDIO CH SELECT

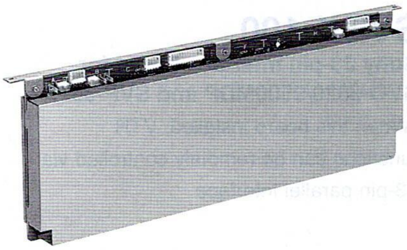
## SVBK-150

### Sony digital noise reducer board for SVO-9620 and SVP-9020

•Reduces both Y (luminance) and C (chrominance) noise with its YNR (noise reducer) and CNR

•Provides Y Enhance function, TBS (Time Base Stabilizer), and Field dropout compensation

Dimensions: 318 (W) × 106 (H) × 26 (D) mm
($12\frac{5}{8} \times 4\frac{1}{4} \times 1\frac{1}{16}$ inches)
Mass: 370 g (13 oz)
Supplied accessories:
Operation manual



## SVBK-160

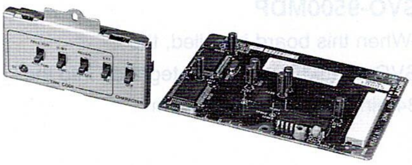
### Sony time code board for SVO-9620 and SVP-9020

•Attaches to the SVBK-140 RS-422A Interface Board

•When this board installed, the VTR can record (SVO-9620 only) and read the EBU time code

•Consists of the following components: TC-69 board/Switch panel/Flat cable

Applicable time code:
SMPTE or EBU longitudinal time code (LTC)
Drop frame (NTSC mode only):
Drop frame or non-drop frame selectable
Dimensions: Board:
118.5 (W) × 85 (H) × 10 (D) mm
($4\frac{3}{4} \times 3\frac{3}{8} \times 1\frac{3}{32}$ inches)
Panel:
85 (W) × 52.5 (H) × 13 (D) mm
($3\frac{3}{8} \times 2\frac{1}{8} \times 1\frac{7}{32}$ inches)
Mass: Board: 80 g (2.8 oz)
Panel: 70 g (2.5 oz)

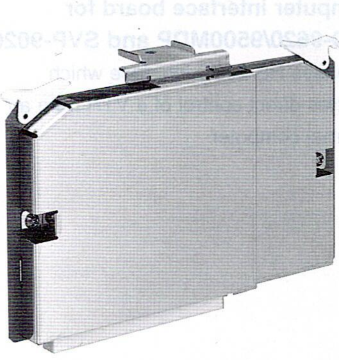


## SVBK-170P

### Component output board for SVO-5800P/SVP-5600P

•When this board is installed, the VTR can output component video signal (Y/R-Y/B-Y), which conforms to the Betacam SP format

Dimensions: 177 (W) × 105 (H) × 20 (D) mm
($7 \times 4\frac{1}{4} \times \frac{3}{32}$ inches)
Mass: 120 g (4.2 oz)

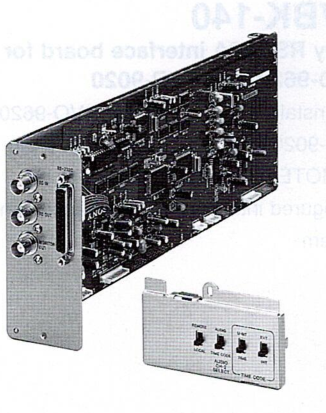


## SVBK-180P

### RS-232C interface board for SVO-9620 and SVP-9020

•Provides an RS-232C interface which enables direct control of a VTR from an external computer •Incorporates an EBU standard time code generator/reader •Built-in editing capability (insert/assemble) •Built-in intelligence to support frame by frame editing capability •Capable of changing its communication protocol to the same as that of the SVBK-120 Interface Board

Connector: RS-232C I/F: D-sub 25-pin (1)
Time Code out: BNC (1)
Time Code in: BNC (1)
Monitor out: BNC (1)
Dimensions: Board: 62 (W) × 115 (H) × 361 (D) mm
($2\frac{1}{2} \times \frac{5}{8} \times 14\frac{1}{4}$ inches)
Rear panel: 85 (W) × 52.5 (H) × 13 (D) mm
($3\frac{3}{8} \times 2\frac{1}{8} \times 1\frac{7}{32}$ inches)



## SVRM-100A

### Remote control unit for the SVO-5800P, SVP-5600P and SVO-9500MDP

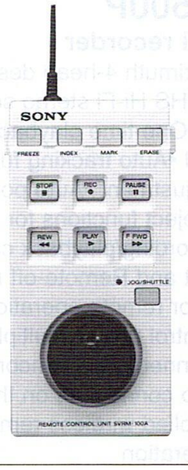
•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD •JOG/SHUTTLE operation •Enables ±10 times normal speed in search operation •Field freeze operation for SVO-5800P/ SVP-5600P

### Features especially for the SVO-9500MDP

•Index search function •Three freeze mode: frame freeze, first field freeze and second field freeze

### Specifications

| | |
|---|---|
| Power requirements: | DC 5V (supplied from the VTR) |
| Power consumption: | 40 mW |
| Remote control: | Stereo mini plug |
| Control signal: | Control S |
| Dimensions: | 90 (W) × 39 (H) × 182 (D) mm<br>($3\frac{5}{8} \times 1\frac{9}{16} \times 7\frac{1}{4}$ inches) |
| Mass: | 250 g (8.8 lb) |


SONY
FREEZE
INDEX
MARK
ERASE
STOP
REC
PAUSE
REW
PLAY
F FWD
JOG/SHUTTLE
REMOTE CONTROL UNIT SVRM-100A

## DSRM-10

### Remote Control Unit

•Designed to remotely control the S-VHS VTRs (SVO-9620/SVP-9020) UVW VTRs (UVW-1800P/UVW-1600P/ UVW-1200P), and DVCAM VTRs (DSR-85P/DSR-80P/DSR-60P) •Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD •JOG/SHUTTLE operation •Enables ±16 times normal speed in search operation

### Specifications

| | |
|---|---|
| Power requirements: | DV 5V (supplied from the connected VTR) |
| Power consumption: | 50mW |
| Remote control: | Stereo mini-plug (with attached cable, length 3m (10ft)) |
| Dimensions: | 90 (W) × 46 (H) × 182 (D) mm<br>($3\frac{5}{8} \times 1\frac{13}{16} \times 7\frac{1}{4}$ inches) |
| Mass: | Approx. 360 g (12oz) |
| Supplied accessory: | Operating instructions |

SONY
DSRM-10
REMOTE CONTROL UNIT
STOP
REC
PAUSE
REW
PLAY
F FWD
JOG/SHUTTLE

## MQSE series S-VHS Videocassette

•Metal particle tape for S-VHS recording •Anti-static lid to protect the tape from dirt and dust particles for low dropouts •S-VHS mode recording can be activated via the detection holes on the back of the cassette • Rugged, pro-type album case

| Model name | Playing time* (min) | Tape length m (ft) | Mass** g (lb.) |
|---|---|---|---|
| MQSE-30 | 30 | 45 (148) | 340 (0.75) |
| MQSE-60 | 60 | 88 (289) | 350 (0.77) |
| MQSE-120 | 120 | 173 (568) | 370 (0.81) |
| MQSE-180 | 180 | 258 (847) | 390 (0.86) |

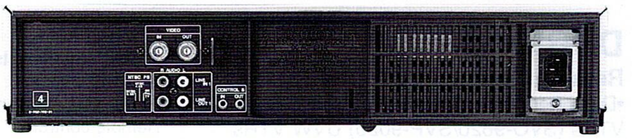
* Playing time = SP mode
**With case

SONY
SE-120
SONY
SE-60
SONY
SE-30
S-VHS

## SVO-1500P

### VHS Hi-Fi recorder

•Double Azimuth 4-head design for clear slow and freeze pictures •VHS Hi-Fi stereo sound •Auto repeat playback capability •One-time playback capability •Dual-mode shuttle ring control •Auto tracking function to eliminate the need for manual adjustment •Auto power-on, Auto rewind and Auto power-off eject functions for operational convenience •NTSC recording/playback capability •Auto-head cleaner •Key inhibit and Remote-off modes •Control-S IN/OUT terminals for remote operation with the optional RM-V200 remote control unit or multiple VTR operation •BNC video IN/OUT connectors •Camcorder friendly design of audio/video connectors on the front panel •Burglar-proof hook •Supplied wireless remote commander RMT-V139 for remote operation



| | |
|---|---|
| Supplied accessories: | Wireless remote commander RMT-V139A<br>Size AA batteries<br>AC power cord<br>Operation manual |
| Optional accessories: | Wired/wireless remote control unit RM-V200 |

### Specifications

**General**

| | |
|---|---|
| Mass: | 5.3 kg (11 lb 8 oz) |
| Dimensions: | 430 (W) × 91 (H) × 368 (D) mm<br>(17 × $3^{5}/_{8}$ × $14^{1}/_{2}$ inches) |
| Power requirements: | AC 220V to 240V, 50/60Hz, 3 wire grounded receptacle |
| Power consumption: | 19W |
| Operating temperature: | 5 to 40˚C (41 to 104˚F) |
| Storage temperature: | –20 to 60˚C (-4 to 140˚F) |
| Videocassette: | E-240/120, T-160/120/60/30 |
| Tape speed: | SP: 23.39mm/s<br>LP: 11.70mm/s |
| REC & PB mode: | SP/LP recording (PAL), SP/EP recording (NTSC)<br>SP/LP playback (PAL), SP/LP/EP playback (NTSC) |
| Tape format: | VHS |
| F FWD and REW time: | Less than 4 min 30s (with E-240) |

**Video**

| | |
|---|---|
| Video signal: | PAL (colour)/ CCIR (monochrome) |
| Video recording system: | Rotary two-head helical scanning |
| Input: | BNC × 1: 1.0Vp-p, 75Ω, unbalanced, sync negative<br>Phono × 1: 1.0Vp-p, 75Ω, unbalanced, sync negative |
| Output: | BNC × 1: 1.0Vp-p, 75Ω, unbalanced, sync negative<br>Phono × 1: 1.0Vp-p, 75Ω, unbalanced, sync negative |
| Horizontal resolution: | More than 220TV lines |
| S/N ratio: | More than 42dB (in SP mode) |

**Audio**

| | |
|---|---|
| Audio recording system: | Rotary two-head Hi-Fi system |
| Input: | Phono × 2 (L/R, Front): –7.5dBu, 47kΩ balanced<br>Phono × 2 (L/R, Rear): –7.5dBu, 47kΩ balanced |
| Output: | Phono × 2 (L/R, Front): –7.5dBu, 47kΩ balanced<br>Phono × 2 (L/R, Rear): –7.5dBu, 47kΩ balanced |
| Microphone: | –60dBu, 600Ω, unbalanced |
| Headphone: | Stereo mini jack |
| Frequency response: | 20Hz to 20kHz (in SP mode) |
| Distortion: | Less than 0.5% (in SP mode) |
| Dynamic range: | More than 90dB |

**Others**

| | |
|---|---|
| Control-S (Input): | Mini jack × 1 |
| Control-S (Output): | Mini jack × 1 |

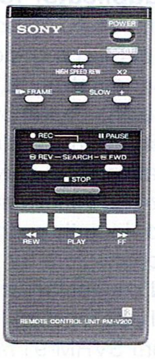
**Wireless Remote Commander**

| | |
|---|---|
| Remote control system: | Infrared control |
| Command mode: | VTR-3 |
| Power requirement: | AA (R6) batteries |
| Dimensions: | 40 (W) × 175 (H) × 18 (D) mm<br>($1^{5}/_{8}$ × 7 × $2^{3}/_{32}$ inches) |
| Mass: | 59 g (2 oz) |

## RM-V200

### Wired/wireless remote control unit

•VTR operation: STOP/PLAY/REC/PAUSE/FWD SEARCH/REW SEARCH/FF/REW/EJECT/POWER ON & OFF •High speed rewind button/ ×2speed playback/ frame advance operations for SVO-1500P •Either Control S or Control P control signal selectable


SONY
POWER
HIGH SPEED REW
X2
FRAME
SLOW
REC
PAUSE
REV SEARCH FWD
STOP
REW
PLAY
FF
REMOTE CONTROL UNIT RM-V200

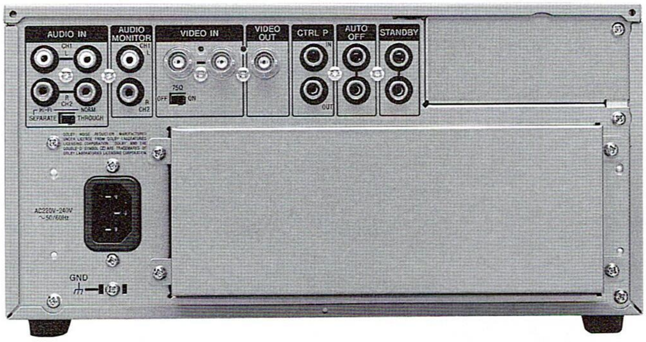
| | |
|---|---|
| Supplied accessories: | Size AA battery × 2<br>Control S cable (3m)<br>Control P cable (1.5m)<br>Operation manual |
| Mass: | 105 g (3 oz) excluding batteries |
| Dimensions: | 65 (W) × 18 (H) × 150 (D) mm<br>($2\frac{5}{8} \times 2\frac{3}{32} \times 6$ inches) |
| Power requirements: | DC 3V |
| Operating temperature: | 5 to 45°C (41 to 113°F) |
| Control signal: | Control S (SIRCS)<br>Control P (Inverted SIRCS) |

## SVO-965P

VHS Hi-Fi

### VHS Hi-Fi duplicator for recording/playback

•Provides both recording and playback modes •High cocentration of Silicon is incorporated in the lower drum for improved wear durability •Long-life video Hi-Fi head •High quality picture and sound by wide video/audio track design •Quality construction and durable mechanism for highly reliable operation •Low power consumption of 25W •Compact size and lightweight •Control P IN/OUT connectors for loop-through connection •Loop-through audio/video connectors for simpler system connection •Control S IN connector for VTR operation checking •Automatic check function for reliable recording results (operated from SVRM-911/SVRM-960) •Data set function: VTR ID SET, ID code REC ON/OFF, ID code display ON/OFF, video AGC ON/OFF, audio limiter ON/OFF, Hi-Fi REC ON/OFF etc. •Auto off function for technical difficulties •Convenient front test terminals for easy technical testing •Operation status indicator: TAPE RUN, REC, EJECT/ AUTO OFF



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Instruction manual |

### Specifications

| | |
|---|---|
| **General** | |
| Mass: | 7 kg (15 lb 7 oz) |
| Dimensions: | 270 (W) × 132 (H) × 370 (D) mm<br>($10\frac{3}{4} \times 5\frac{1}{4} \times 14\frac{5}{8}$ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 25W |
| Storage temperature: | –20 to 60°C (–41 to 140°F) |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Tape speed: | 23.39 mm/s (SP mode) |
| F FWD and REW time: | Within 2.5min (with Sony E-180 tape) |
| Videocassette: | VHS standard cassette tapes |
| **System** | |
| Video signal system: | CCIR standard/PAL colour |
| Video recording system: | Rotary two-head Azimuth recording, VHS standard<br>Luminance: FM recording<br>Colour signal: Converted subcarrier phase shift recording |
| Audio recording system: | Hi-Fi audio: Rotary two-head helical scanning system<br>Normal audio: Stationary head |
| **Video** | |
| Input: | Composite video: BNC with loop-through output, 1Vp-p, 75Ω switchable, unbalanced, sync negative |
| Output: | Composite video: BNC, 1Vp-p, 75Ω, unbalanced, sync negative |
| Horizontal resolution: | More than 240TV lines |
| S/N ratio: | Better than 44dB |
| **Audio** | |
| Input: | SEPARATE/THROUGH switch selectable*<br>Hi-Fi (CH-1/CH-2): Phono (×2)<br>Normal (CH-1/CH-2): Phono (×2) |
| Audio level: | –10dBu, 47kΩ, unbalanced |
| Output: | Phono (×2) |
| Audio level: | –10dBu, 47kΩ, unbalanced |
| S/N ratio (Dolby off): | 43dB (Normal audio) |
| Dynamic range: | Better than 90dB (Hi-Fi audio) |
| Frequency response: | Normal: 50Hz to 10kHz<br>Hi-Fi: 20Hz to 20kHz |
| Audio level adjustment: | Manual (4ch)<br>Limiter on/off selectable (Normal audio) |
| **Remote control** | |
| Control S: | IN: Mini jack |
| Control P: | IN: Phono<br>OUT: Phono |

---

* When switch is in THROUGH position, loop-through output is available

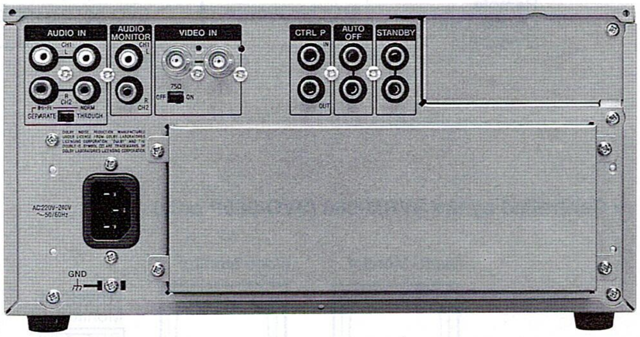
## SVO-915P

VHS Hi-Fi

### VHS Hi-Fi duplicator for recording

•Provides recording mode only for large size duplication system •High concentration of Silicon is incorporated in the lower head drum scanner for improved wear durability •Long-life video/Hi-Fi head •Quality construction and durable mechanism for highly reliable operation •High quality picture and sound by wide video/audio track design •Low power consumption of 25W •Compact and light-weight •Control P IN/OUT connectors •Loop-through audio/video connectors for simple system connection •Control S IN connector for VTR operation checking •Data set function: VTR ID SET, ID code REC ON/OFF, ID code display ON/OFF,video AGC ON/OFF, audio limiter ON/OFF, Hi-Fi REC ON/OFF, Dolby NR ON/OFF etc. •Auto off function for technical difficulties •Convenient front test terminals for easy technical testing •Operation status indicator: TAPE RUN, REC, EJECT/AUTO OFF •Audio monitor out for checking the audio recording level

SONY
EJECT
TAPE RUN
REC
EJECT AUTO OFF
DUPLICATOR SVO-915P
VHS Hi-Fi
POWER



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Instruction manual |

### Specifications

| | |
|---|---|
| **General** | |
| Mass: | 7 kg (15 lb 7 oz) |
| Dimensions: | 270 (W) × 132 (H) × 370 (D) mm<br>(10³/₄ × 5¹/₄ × 14⁵/₈ inches) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 25W |
| Storage temperature: | –20 to 60°C (–41 to 140°F) |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Tape speed: | 23.39 mm/s (SP mode) |
| F FWD and REW time: | Within 2.5min (with Sony E-180 tape) |
| Videocassette: | VHS standard cassette tapes |
| **System** | |
| Video signal system: | CCIR standard/PAL colour |
| Video recording system: | Rotary two-head Azimuth recording, VHS standard<br>Luminance: FM recording<br>Colour signal: Converted subcarrier phase shift recording |
| Audio recording system: | Hi-Fi audio: Rotary two-head helical scanning system<br>Normal audio: Stationary head |
| **Video** | |
| Input: | Composite video: BNC with loop-through output, 1Vp-p, 75Ω switchable, unbalanced, sync negative |
| Horizontal resolution: | More than 240TV lines |
| S/N ratio: | Better than 44dB |
| **Audio** | |
| Inputs: | SEPARATE/THROUGH switch selectable*<br>Hi-Fi (CH-1/CH-2): Phono (×2)<br>Normal (CH-1/CH-2): Phono (×2) |
| Input level: | –10dBu, 47kΩ, unbalanced |
| Outputs: | Phono (×2) |
| Output level: | –10dBu, 47kΩ, unbalanced |
| S/N ratio (Dolby off): | 43dB (Normal audio) |
| Dynamic range: | Better than 90dB (Hi-Fi audio) |
| Frequency response: | Normal: 50Hz to 10kHz<br>Hi-Fi: 20Hz to 20kHz |
| Audio level adjustment: | Manual (4ch)<br>Limiter on/off selectable (Normal audio) |
| **Remote control** | |
| Control S: | IN: Mini jack |
| Control P: | IN: Phono<br>OUT: Phono |

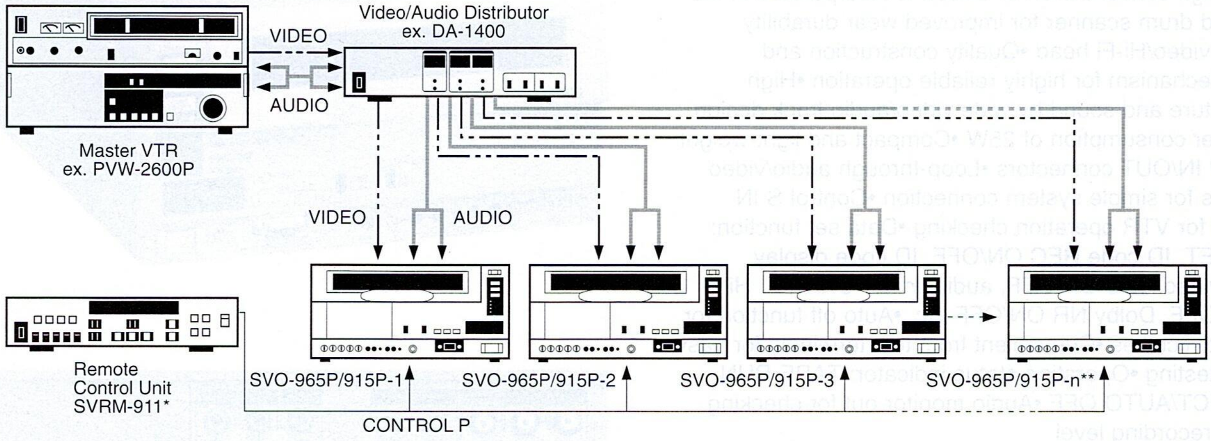
---

* When switch is in THROUGH position, loop-through output is available

# 5-5 VHS Hi-Fi duplicators

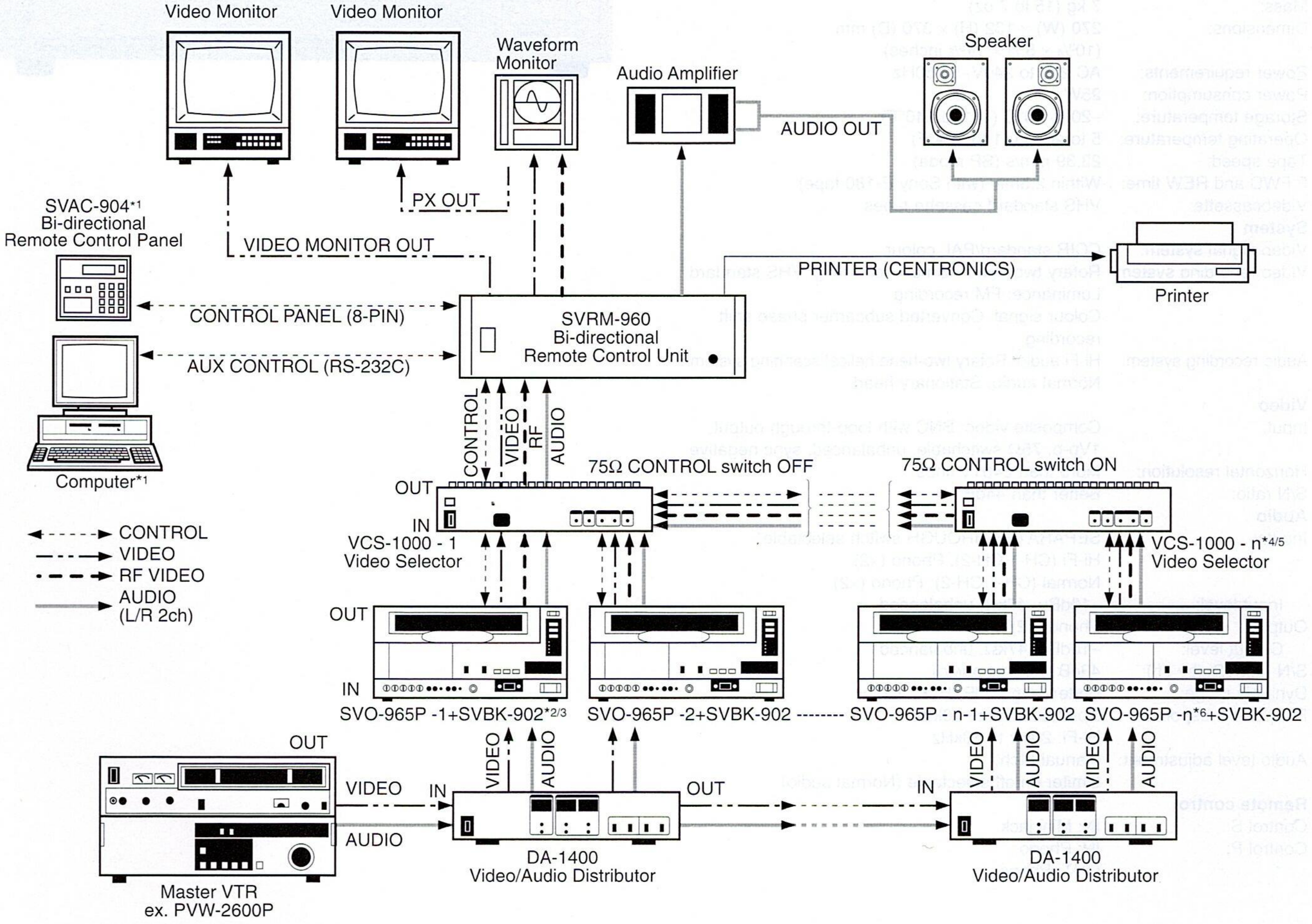
## System Configuration

**• Controlled by the SVRM-901**


Video/Audio Distributor
ex. DA-1400
VIDEO
AUDIO
Master VTR
ex. PVW-2600P
VIDEO
AUDIO
Remote
Control Unit
SVRM-911*
SVO-965P/915P-1
SVO-965P/915P-2
SVO-965P/915P-3
SVO-965P/915P-n**
CONTROL P

* RM-V200 Remote Control Unit can also be used for a master remote control unit.
** Up to 2000VTRs can be connected.

**• Controlled by the SVRM-960 (SVO-965P only)**


Video Monitor
Video Monitor
Waveform
Monitor
Audio Amplifier
Speaker
AUDIO OUT
PX OUT
VIDEO MONITOR OUT
PRINTER (CENTRONICS)
Printer
SVAC-904*1
Bi-directional
Remote Control Panel
CONTROL PANEL (8-PIN)
SVRM-960
Bi-directional
Remote Control Unit
AUX CONTROL (RS-232C)
Computer*1
CONTROL
VIDEO
RF
AUDIO
75Ω CONTROL switch OFF
75Ω CONTROL switch ON
OUT
IN
VCS-1000 - 1
Video Selector
VCS-1000 - n*4/5
Video Selector
CONTROL
VIDEO
RF VIDEO
AUDIO
(L/R 2ch)
OUT
IN
SVO-965P -1+SVBK-902*2/3
SVO-965P -2+SVBK-902
SVO-965P - n-1+SVBK-902
SVO-965P -n*6+SVBK-902
VIDEO
AUDIO
VIDEO
AUDIO
VIDEO
AUDIO
OUT
VIDEO
IN
AUDIO
OUT
IN
Master VTR
ex. PVW-2600P
DA-1400
Video/Audio Distributor
DA-1400
Video/Audio Distributor

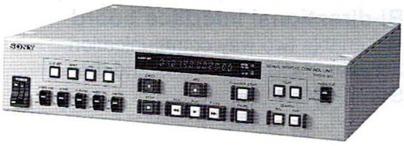
*1 VTR control can be operated either from the SVAC-904 or an external computer.
*2 SVBK-902 Bi-directional Interface Board (optional) must be installed in the SVO-965P.
*3 Set the 75Ω switch on all the SVBK-902 used in a system to OFF.
*4 Set the 75Ω switch on the last VCS-1000 to ON.
*5 Up to 50 VCS-1000 can be connected.
*6 Up to 1000 VTRs can be connected.

# 5-6 Optional accessories for SVO-965P/915P

## SVRM-911

### Serial remote control unit

•Control P out connectors for controlling entire duplication VTRs: up to 2,000 VTRs
•System management capability
•VTR mode set up capability: VTR ID code REC ON/OFF, video AGC ON/OFF, Hi-Fi Audio ON/OFF, audio limiter ON/ OFF, etc.
•Auto Check function for examining secure video/audio recording •Legible push-type buttons •7-segment LED for ID display
•Built-in AC power supply •19-inch rack mountable/2u size



## RM-V200 (Wired only)

### Remote control unit

•For simple control of one VTR
•Equipped with control P/S select switch
•Duplication control capability via control P output

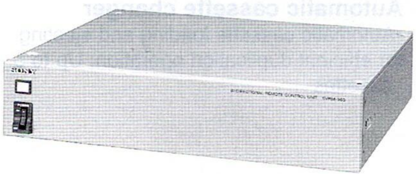
SONY
POWER
HIGH SPEED REW
X2
FRAME
SLOW
REC
PAUSE
REV – SEARCH – FWD
STOP
REW
PLAY
FF
REMOTE CONTROL UNIT RM-V200

## SVRM-960(SVO-965P only)

### Bi-directional remote control unit

•Duplication VTR control capability: up to 1,000 VTRs
•Individual VTR status monitoring capability
•VTR mode set up capability: VTR ID code REC ON/OFF, video AGC ON/OFF, Hi-Fi Audio ON/OFF, audio limiter ON/ OFF, etc.
•Auto Check function for examining secure video/audio recording
•RS-232C interface for computer control operation

Mass: 8.0 kg (17 lb 10 oz)
Dimensions: 424 (W) × 88 (H) × 350 (D) mm ($16^{3}/_{4} \times 3^{1}/_{2} \times 13^{7}/_{8}$ inches)


SONY
BI-DIRECTIONAL REMOTE CONTROL UNIT SVRM-960

## SVAC-904(SVO-965P only)

### Bi-directional remote control panel

•To operate a duplication system with the SVRM-960 Bi-directional remote control unit

Mass: 0.8 kg (1 lb 12 oz)
Dimensions: 180 (W) × 53 (H) × 220 (D) mm ($7^{1}/_{8} \times 2^{1}/_{8} \times 8^{3}/_{4}$ inches)

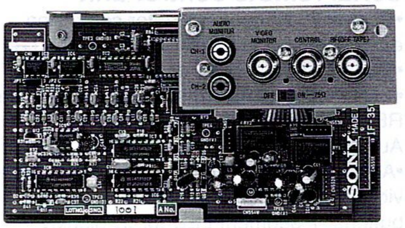
SONY
BI-DIRECTIONAL CONTROLLER
CLOCK
SET UP
AUDIO
VIDEO
HI-FI
NORM
DATE
EMRG.STOP
CHANGER
RF
AUDIO
USER ID
VTR ID
MODE
STATUS
TEST
EJECT
REC
STOP
REW
PLAY
F.FWD
PAUSE
ALL
ENTER

# 5-6 Optional accessories for SVO-965P/915P

## SVBK-902(SVO-965P only)

**Bi-directional interface board**

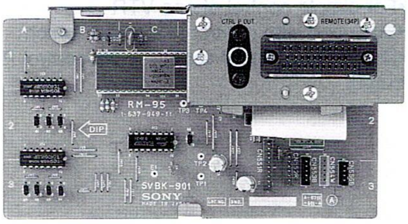
•To enable two way communication between duplication VTRs and the SVRM-960



## SVBK-901

**34-pin parallel interface board**

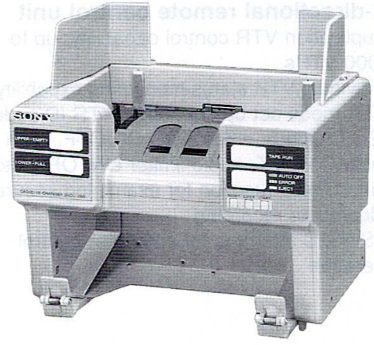
•To meet 34-pin based control system
•Control P serial control signal output connector


CTRL P OUT
REMOTE(34P)
RM-95
DIP
SVBK-901
SONY

## SVCC-960

**Automatic cassette changer**

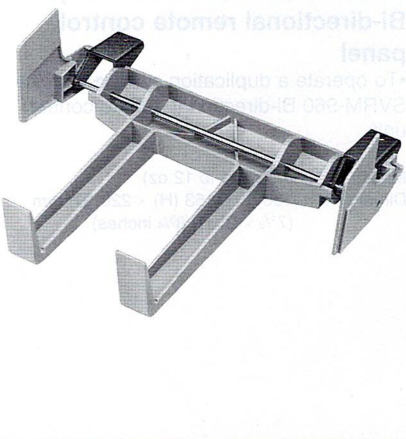
•Automatic cassette loading and ejecting for efficient duplication operation: Up to 5 cassettes


SONY
UPPER-EMPTY
LOWER-FULL
TAPE RUN
AUTO OFF
ERROR
EJECT

## SVAC-902

**Cassette holder**

•To hold cassettes ejected by the SVCC-960
•Using with the SVCC-960



## SVAC-901

**Audio meter**

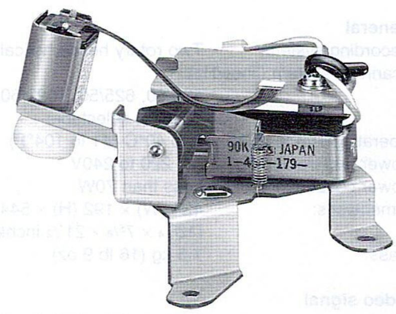
- For monitoring audio recording level

AUDIO LEVEL
CH-1
CH-2

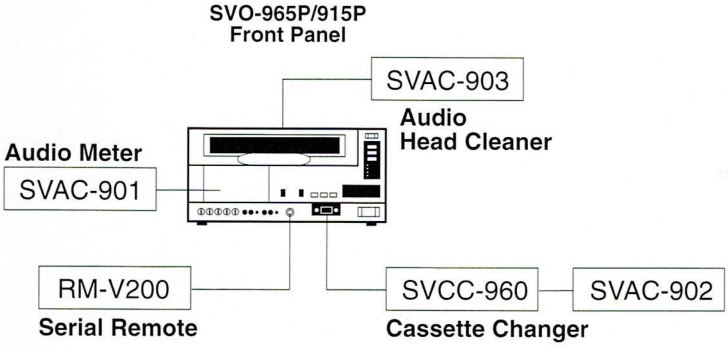
## SVAC-903

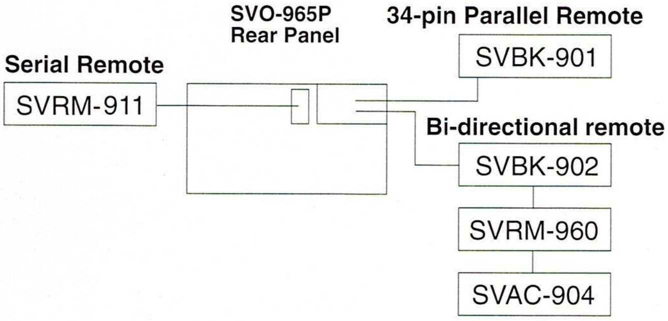
**Audio head cleaner**

- For cleaning a stationary audio head in the SVO-965P/915P



### Optional Accessory Allocations


SVO-965P/915P
Front Panel
SVAC-903
Audio
Head Cleaner
Audio Meter
SVAC-901
RM-V200
Serial Remote
SVCC-960
SVAC-902
Cassette Changer

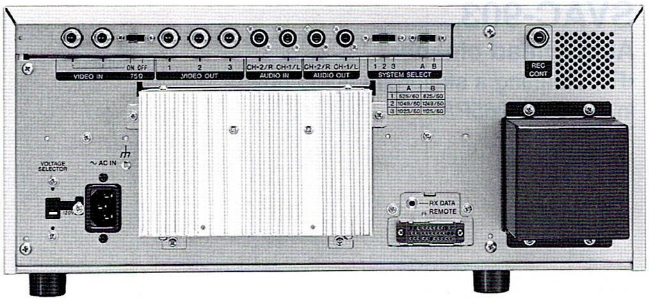

SVO-965P
Rear Panel
34-pin Parallel Remote
SVBK-901
Serial Remote
SVRM-911
Bi-directional remote
SVBK-902
SVRM-960
SVAC-904

## VO-9600H

### High resolution B/W videocassette recorder

•High quality picture reproduction by utilizing the SP U-matic technology •Multiple scanning system for universal applications •Clear still picture •REC standby function for immediate recording operation •High speed picture search in the range of ±30 times normal speed by a Search Dial •Control S IN and Sony 33-pin remote interface to meet a wide range of applications •Quick start function for immediate VTR operation •Three video out connectors for easy system expansion •Audio recording capability •Real time counter •Compliance with medical safety regulations: UL-544 and IEC-601-1

| | |
|---|---|
| Supplied accessories: | KSP-60 SP U-matic videocassette<br>Instruction manual<br>AC power cord |



### Specifications

**General**

| | |
|---|---|
| Recording system: | Two rotary heads helical scanning system |
| Scanning system (lines/Hz): | 525/60, 625/50, 1023/60, 1049/60, 1125/60, 1249/50 selectable |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220 to 240V |
| Power consumption: | Less than 70W |
| Dimensions: | 424 (W) × 192 (H) × 544 (D) mm<br>($16\frac{3}{4} \times 7\frac{5}{8} \times 21\frac{1}{2}$ inches) |
| Mass: | 7.5 kg (16 lb 9 oz) |

**Video signal**

| | |
|---|---|
| Input: | 1.0Vp-p, 75Ω (with termination switch), sync negative |
| Output: | 1.0Vp-p, 75Ω, sync negative |
| S/N ratio & Horizontal resolution: | 46dB, 480 lines (525/60)<br>43dB, 480 lines (625/50)<br>46dB, 240 lines (1023/60)<br>46dB, 240 lines (1049/60)<br>46dB, 220 lines (1125/60)<br>43dB, 240 lines (1249/50) |

**Audio signal**

| | |
|---|---|
| Input (0dBu=0.775Vrms): | LINE IN: –10dBu, 47kΩ, unbalanced<br>MIC IN: –60dBu, 3kΩ, unbalanced<br>–10dBu, 47kΩ, unbalanced |
| Output (0dBu=0.775Vrms): | LINE OUT: –5dBu at 47kΩ, unbalanced<br>Headphones: –24dBu to –46dBu at 8Ω headphones |
| S/N ratio: | 48dB |
| Frequency response: | 50Hz to 15kHz |

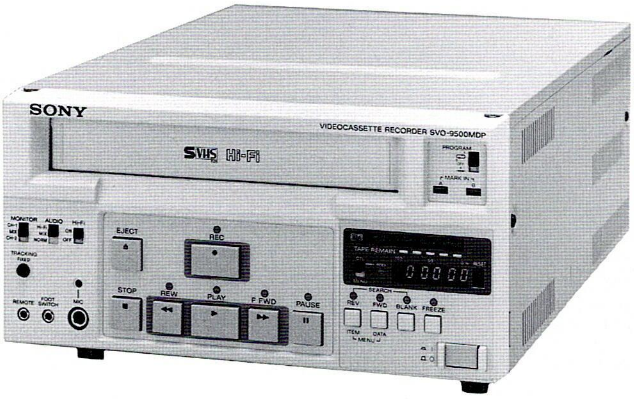
**Tape transport**

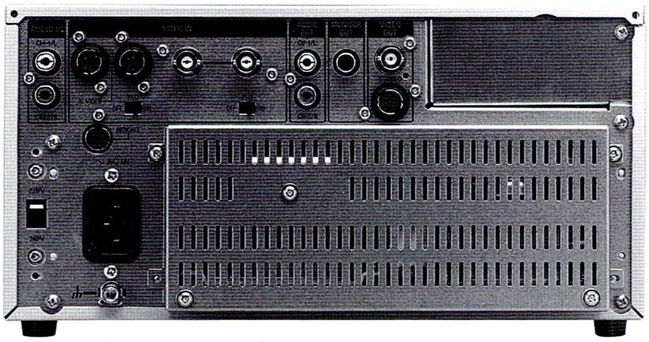
| | |
|---|---|
| Tape speed: | 9.53 mm/s |
| REC/PB time: | 60min |
| Videocassette: | KSP/KSP-S series videocassette |

## SVO-9500MDP

### S-VHS videocassette recorder

•High quality picture and sound by S-VHS format and wide video/audio track design •Digital Chroma Noise Reducer (CNR) to provide highly stable picture •Clear and crisp freeze pictures in either frame or field mode thanks to built-in digital frame memory •Quality construction and durable mechanism for highly reliable operation •Quick response mechanism for immediate operation •±10 times picture search •Blank search function for quick searching of blank part on the tape •Index search function for rapid point location •Programmed operation •Tape remain indicator to show the amount of tape remaining •Auto head cleaner •Compact size and lightweight •Hi-Fi stereo audio recording system •Hi-Fi ON/OFF switch •VTR mode setting menu •SVRM-100A optional remote control unit •SVBK-100 33-pin interface board/SVBK-110 34-pin interface board/ SVBK-120 Computer interface board (RS-232C) for wide system versatility •Compliance with medical safety regulation: IEC-601-1





| | |
|---|---|
| Supplied accessory: | Instruction manual |
| Optional accesories: | Remote control unit SVRM-100A<br>33-pin interface board SVBK-100<br>34-pin interface board SVBK-110<br>Computer interaface board SVBK-120<br>Indicator unit SVAC-100 |

## Specifications

### General

| | |
|---|---|
| Video recording system: | Two rotary heads helical scanning system |
| Video signal system: | CCIR monochrome/PAL colour |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Power requirements: | AC 220V/240V (selectable), 50/60Hz |
| Power consumption: | Less than 64W |
| Dimensions: | 270 (W) × 144 (H) × 370 (D) mm<br>($10\frac{3}{4} \times 5\frac{3}{4} \times 14\frac{5}{8}$ inches) |
| Mass: | 12 kg (26 lb 7 oz) |

### Video signal

| | |
|---|---|
| Input: | BNC: 1.0Vp-p, 75Ω, sync negative<br>S-VIDEO: Mini DIN 4-pin<br>Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p, 75Ω |
| Output: | BNC: 1.0Vp-p, 75Ω, sync negative<br>S-VIDEO: Mini DIN 4-pin<br>Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p, 75Ω |
| S/N ratio: | Better than 45dB |

### Audio signal

| | |
|---|---|
| Input: | LINE IN: CH-1/CH-2: –10dBu, 47kΩ, unbalanced<br>Microphone: CH-2: –60dBu, 3kΩ, unbalanced |
| Output: | LINE OUT: CH-1/CH-2: –10dBu, 47kΩ, unbalanced<br>Monitor out: –5dBu, 47kΩ, unbalanced |
| S/N ratio: | 40dB (standard) |
| Dynamic range: | Better than 90dB (Hi-Fi) |
| Frequency response: | 50Hz to 10kHz (standard), 20Hz to 20kHz (Hi-Fi) |

### Tape transport

| | |
|---|---|
| Tape speed: | 23.39 mm/s |
| F FWD and REW time: | 2.5min (E-180) |
| Videocassette: | VHS standards cassette tapes |

# SECTION 2 VIDEO CAMERAS

**1. Production video cameras**

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DXC-107AP..................................................100

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## DXC-D30P series

### 3-chip colour video camera

•Incorporates DSP(Digital Signal Processing) technology based on the TruEye™ •Directly dockable to analogue recorders (PVV-3P and EVV-9000P) •Directly dockable to the DSR-1P DVCAM Digital Recorder •Compact size, lightweight and low power consumption •High density three 2/3-inch IT Power HAD sensors and the new digital signal processing circuits offer superior picture quality
— 850 TV lines of horizontal resolution
— Excellent signal-to-noise ratio of 61dB
— High sensitivity of F11.0 at 2000 lx
— Smear level -125dB
•TruEye Process realizes faithful color reproduction •High degree of stability in video output (offered by DSP) •Uniformity of picture tone among multiple DXC-D30P units (offered by DSP) •Skin Detail with auto detection system of active area •Horizontal detail frequency control •Red vertical detail correction •New DCC Plus function on the basis of DynaLatitude processing - for ideal video level distribution in any situations •Clean Detail by DSP provides Black Halo-free natural lines •Clear Scan function for shooting computer displays without horizontal bands appearing across display screen •Hyper Gain mode provides the combined effect of +30dB of electronic gain-up and +6dB of DPR (Dual Pixel Readout) under 1 lux illumination •DPR (Dual Pixel Readout) technology realizes noiseless picture even when gain value is increased •TLCS (Total Level Control System) to ensure the correct exposure even under/ over the limits of automatic iris control •Intelligent Auto Iris control function •EZ Mode and EZ Focus functions enable cameramen to get ready for shooting swiftly •Easy-to-use File Management System (Five factory files and three user files available) •The 10-pin REMOTE connector (RS-232C standard) allows control from external computers •ATW (Auto Tracing White Balance) function automatically adjusts white balance when lighting conditions change •Programmable gain mode allows precise gain selection from 8 gain values •Three mode auto iris system- STD (Standard), BACK L(Back Light) and SPOT L(Spot Light) •DCC (Dynamic Contrast Control) circuit can reproduce 600% dynamic range •Variable Speed Electronic Shutter •Clear Scan•Supplies a 1kHz audio reference signal simultaneously with the colour bar signal •Date and time can be superimposed on the video signal •Directly dockable with DSR-1P DVCAM Digital Recorder (Refer to the description of the DSR-130P) •Directly dockable with the PVV-1AP/3P for high quality component acquisition (Refer to the description of PVW-D30P) or with the EVV-9000P for handy operation •Can be combined with the recorders from Panasonic or JVC via the CA-512AP or CA-513 •When combined with CA-537P/327P, 26/14-pin connectors provides signal output in Y/R-Y/B-Y, VBS, Y/C and RGB forms for connection with various equipement •Can be connected with computer equipment via CA-325A/325B camera adaptor •Adjustable shoulder pad •Monitor out function

| Supplied accessories: | Wind screen<br>Lens mount cap<br>Chart for flange focal<br>Operating instructions |
|---|---|

### Specifications

**General**

| | |
|---|---|
| Image device: | 2/3–inch Interline Transfer CCD (×3)<br>795(H) × 596(V) total picture elements<br>752(H) × 582(V) effective picture elements |
| Built-in filters: | 1: 3200K, 2: 5600K + 1/8ND, 3: 5600K,<br>4: 5600K+1/64ND |
| Lens mount: | Bayonet-mount |
| Video signal system: | PAL standard |
| Sync system: | Internal or external with VBS or BS |
| Horizontal resolution: | 850TV lines |
| Minimum illumination: | 0.5 lx with F1.4, Hyper Gain (DPR+30dB)<br>0.8 lx with F1.8, Hyper Gain (DPR+30dB) |
| Sensitivity: | F11.0 at 2000 lx (3200K, 89.9% reflectance)(typical) |
| Gain selection: | –3dB, 0dB, +3dB, +6dB, +9dB, +12dB, +18dB,<br>* DPR+18dB, +24dB, * DPR+24dB,<br>Hyper Gain (* DPR+30dB) |
| S/N ratio: | 61dB (typical) |
| Power requirements: | DC12V |
| Power consumption: | 12W (without VF/CA-537P) |
| Operating temperature: | –10 to 45˚C (14 to 113˚F ) |
| Mass: | Approx. 2.3 kg (5 lb 1 oz, for camera head only)<br>Approx. 4.3 kg<br>(9 lb 8 oz, with VF and lens, w/o lens hood) |

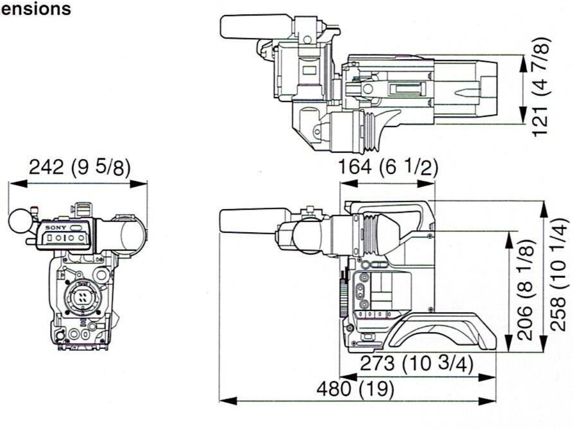
**Inputs/outputs**

| | |
|---|---|
| INTERFACE: | Pro 50-pin |
| VIDEO OUT: | BNC type |
| LENS: | 12-pin |
| VF: | DIN 8-pin |
| REMOTE: | 10-pin |
| MONITOR OUT: | BNC type |

* DPR = +6dB, DPR +18dB = +24dB, DPR+24dB = +30dB, DPR+30dB = +36dB

| | DXC-D30PF1 | DXC-D30PK1 | DXC-D30PL1 | DXC-D30PH |
|---|---|---|---|---|
| Camera head | Yes | Yes | Yes | Yes |
| Camera handle | Yes | Yes | Yes | Yes |
| DXF-701WSCE Viewfinder | Yes | Yes | Yes | Option |
| External microphone | Yes | Yes | Yes | Not available |
| VCT-U14 Tripod adaptor | Yes | Yes | Yes | Option |
| VCL-918BY Zoom lens | Yes | Yes | Option | Option |
| LC-421 Carrying case | Yes | Option | Option | Option |
| RM-LG1 Logger | Yes | Yes | Yes | Option |

**Dimensions**



## DXC-D30WSP

### Wide-screen switchable colour video camera

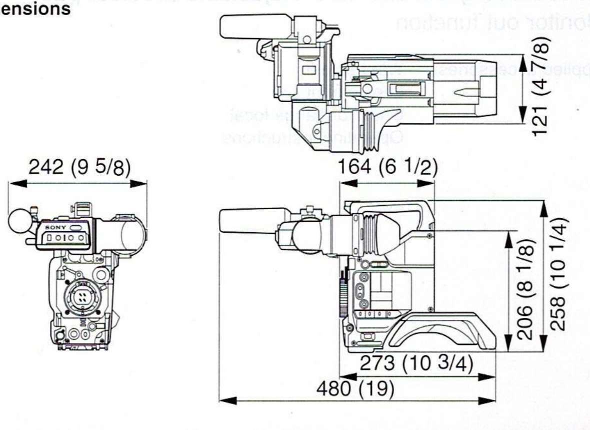
• Aspect ratio is switchable (16:9 wide screeen or 4:3) •All the functions of the DXC-D30P are incorporated •Power HAD WS CCD •16:9 ID information is included (DVCAM system such as DSR-1/60/80 detects 16:9 ID and can record or play back the 16:9 video signal)

| | |
|---|---|
| Supplied accessories: | Remote Control Unit RM-LG1<br>Viewfinder DXF-701WSCE (incl. Mic holder)<br>External microphone (incl. Mic. cable)<br>Wind Screen<br>Tripod adaptor VCT-U14<br>Angle plate for the DXC-D30WSP<br>Lens cap<br>Flange back chart<br>Operation manual for the DXC-D30P<br>Operation manual supplement for the DXC-D30WSP<br>ClipLink Guide |

### Specifications:

| | |
|---|---|
| Image device: | 3-chip 2/3-inch, Interline-Transfer CCD |
| Optics: | F1.4 medium index prism system |
| Effective picture elements: | 980 × 582 (H × V) |
| Total picture elements: | 1038 × 594 (H × V) |
| Sensing area: | 9.6 mm × 5.4 mm |
| Built-in filters: | 1: 3200K/3000K<br>2: 5600K+1/8ND<br>3: 5600K<br>4: 5600K+1/64ND |
| Lens mount: | Sony 2/3-inch Bayonet mount |
| Signal system: | PAL colour system |
| Scanning system: | 2:1 interlaced, 625 lines, 50 fields/s |
| Horizontal frequency: | 15.625 kHz |
| Vertical frequency: | 50 Hz |
| Sync system: | Internal and External with the VBS or BS signal |
| Horizontal resolution: | 16:9 mode: 700TV lines<br>4:3 mode: 700TV lines |
| Vertical resolution: | 450TV lines (without EVS)<br>530TV lines (with EVS) |
| Minimum illumination: | 0.5 lx with F1.4, Hyper gain (30dB+DPR)<br>0.8 lx with F1.8, Hyper gain (30dB+DPR) |
| Sensitivity: | F11 at 2000 lx (3200K, 89.9% reflectance) (typical) |
| Gain selection: | -3dB, 0dB, 3dB, 6dB, 9dB, 12dB, 18dB, 18dB+DPR, 24dB, 24dB+DPR, Hyper Gain (30dB+DPR) |
| Shutter speed selection: | OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 s |
| Clear scan selection: | 50.3 to 201.4Hz |
| Signal-to-noise ratio: | 61dB (typical) |
| Registration: | 0.05% (all zones, without lens) |
| Geometric distortion: | Below measurable level |
| Video output: | Camera head BNC connector:<br>VBS: 1.0 Vp-p, sync negative<br>26-pin connector of CA-537/P docked to DXC-D30WS/P<br>VBS: 1.0Vp-p, sync negative<br>Y/R-Y/B-Y: Y: 1.0Vp-p, sync negative<br>R-Y/B-Y: 525mVp-p<br>RGB: 1.4Vp-p<br>Y/C: Y: 1.0Vp-p, sync negative<br>C: 300mVp-p (burst level) |
| Inputs/ Outputs: | INTERFACE: Pro76-pin DIGITAL, Pro 50-pin<br>VIDEO OUT: BNC-type<br>MONITOR OUT: BNC-type (for UC/CE model)<br>RCA phono-type (for J model)<br>LENS: 12-pin<br>VF: DIN 8-pin, 20-pin<br>REMOTE 1: Stereo mini<br>REMOTE 2: 10-pin |
| Power requirements: | DC 12V (10.5 to 17V) |
| Power consumption: | 14.9W (without VF)<br>15.3W (when docked with the DSR-1/P)<br>17W (with VF) |
| Operating temperature: | -10˚C to 45˚C (23˚F to 113˚F) |
| Storage temperature: | -20˚C to 60˚C (-4˚F to 140˚F) |
| Mass: | Approx. 2.5 kg (5 lb 8 oz) for camera head only<br>Approx. 3.3 kg (7 lb 4 oz) with VF and microphone |
| Dimensions: | 121 (W) × 206 (H) × 273 (D) mm<br>(4$^{7}/_{8}$ × 8$^{1}/_{8}$ × 10$^{3}/_{4}$ inches)<br>(without projections) |
| Note | DPR is equivalent to +6dB gain up.<br>18dB+DPR: Equivalent to +24dB<br>24dB+DRR: Equivalent to +30dB<br>Hyper Gain (30dB+DPR): Equivalent to +36dB |

**Dimensions**



## DXC-637P series

### 3-chip colour video camera

•PVW-637P perfect camcorder operation with the PVV-3P
•Compact size, lightweight and low power consumption
•High density three 2/3-inch IT Hyper HAD sensors, Sony's original spatial offset technology and improved electronic circuit offer superior picture quality
— 800 TV lines of horizontal resolution
— Excellent signal-to-noise ratio of 61dB
— High sensitivity of F8.0 at 2000 lx
•Smear almost negligible due to the HAD sensor structure and OCL layer of the Hyper HAD sensor •The 2-dimensional optical low pass filter and Digital IE circuit suppress aliasing/spurious phenomenon •The detail limiter effectively reduces unsmooth diagonal edges appeared on highly contrasted object (Clean Detail) •Clear Scan function for shooting computer displays without horizontal bands appearing across display screen •Hyper Gain mode provides the combined effect of +30dB of electronic gain-up and +6dB of DPR (Dual Pixel Readout) under 1 lux i llumination •DPR (Dual Pixel Readout) technology realizes noiseless picture even when gain value is increased •EZ Mode and EZ Focus functions enable cameramen to get ready for shooting swiftly •DCC (Dynamic Contrast Control) circuit can reproduce 600% dynamic range •DCC plus provides excellent colour reproduction even at the high luminance level •EVS (Enhanced Vertical Difinition System) realizes a remarkable vertical resolution of 530TV lines •ATW (Auto Tracing White Balance) function automatically adjusts white balance when lighting conditions change •Programmable gain mode allows precise gain selection from 8 gain values •Three modes of matrix- STD (Standard), H.SAT (High Saturation), and FL (Fluorescent light ) are provided to change the chroma saturation and hue •Three mode auto iris system- STD (Standard), BACK L(Back Light) and SPOT L(Spot Light) •Variable Speed Electronic Shutter •Supplies a 1kHz audio reference signal simultaneously with the colour bar signal •Date and time can be superimposed on the video signal •Can be coupled directly with the PVV-1AP/3P for high quality component acquisition or with the EVV-9000P for handy operation •Can be combined with the recorders from Panasonic or JVC via the CA-512 or CA-513 •When combined with CA-537P/
327P, 26/14-pin connectors provides signal output in Y/R-Y/B-Y, VBS, Y/C and RGB forms for connection with various equipement •Can be connected with computer equipment via CA-325A/325B camera adaptor •The VFs display PVV-3P's status, a remarkable 600TV lines of horizontal resolution •V-DTL signal is mixed to the VF's video signal for easy focusing (VF Super Detail) •Safety zone and centre marker indications in viewfinder •The VCL-916BYA aspherical lens allows a wider angle of view and reduced ghost and flare •Adjustable shoulder pad
•Monitor out function

| | |
|---|---|
| Supplied accessories: | Wind screen<br>Lens mount cap<br>Chart for flange focal<br>Operating instructions |

Camera adaptor is optional

### Specifications

**General**

| | |
|---|---|
| Image device: | 2/3–inch Interline Transfer CCD (×3)<br>816(H) × 606(V) total picture elements<br>786(H) × 581(V) effective picture elements |
| Built-in filters: | 1: 3200K, 2: Cross(3200K), 3: 5600K,<br>4: 5600K+1/16ND |
| Lens mount: | Bayonet-mount |
| Video signal system: | PAL standard |
| Sync system: | Internal or external with VBS or BS |
| Horizontal resolution: | 800TV lines |
| Minimum illumination: | 1 lx with F1.4, Hyper Gain (DPR+30dB)<br>1.5 lx with F1.8, Hyper Gain (DPR+30dB) |
| Sensitivity: | F8.0 at 2000 lx (3200K, 89.9% reflectance)(typical) |
| Gain selection: | –3dB, 0dB, +3dB, +6dB, +9dB, +12dB, +18dB, * DPR+18dB, +24dB, * DPR+24dB, Hyper Gain (* DPR+30dB) |
| S/N ratio: | 61dB (typical) |
| Power requirements: | DC12V |
| Power consumption: | 10.5W (without VF/CA-537P) |
| Operating temperature: | –10 to 45°C (14 to 113°F ) |
| Mass: | Approx. 2.3 kg (5 lb 1 oz, for camera head only)<br>Approx. 3.6 kg (7 lb 15 oz, with the CA-537P) |

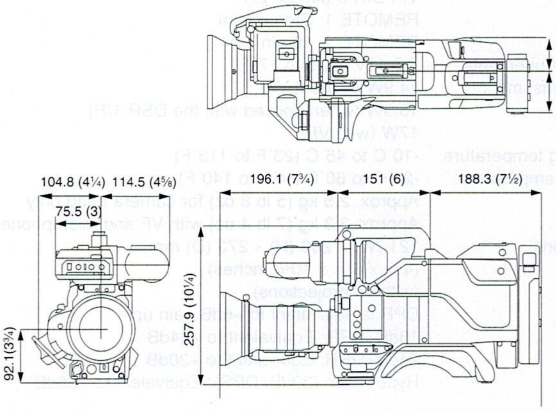
**Inputs/outputs**

| | |
|---|---|
| INTERFACE: | DIN 50-pin |
| VIDEO OUT: | BNC type |
| LENS: | 12-pin |
| VF: | DIN 8-pin |
| REMOTE: | 10-pin |
| MONITOR OUT: | RCA type |

* DPR = +6dB, DPR +18dB = +24dB, DPR+24dB = +30dB, DPR+30dB = +36dB

| Model / Composition | DXC-637PH | DXC-637PL | DXC-637PK |
|---|---|---|---|
| Camera head DXC-637P | Yes | Yes | Yes |
| Zoom lens VCL-916BYA | Option | Option | Yes |
| Viewfinder DXF-601CE | Option | Yes | Yes |
| External microphone | Option | Yes | Yes |
| Tripod adaptor VCT-U14 | Option | Yes | Yes |

**Dimensions**
With optional camera adaptor



## DXC-327BP series

### 3-chip CCD colour video camera

•Directly dockable not only with current analog VTR's/CA's but also with Digital Recorder (DSR-1P) •High sensitivity of F9.0 at 2000 lx and a low smear level (1/10 of the conventional camera) given by three Sony 1/2-inch IT Power HAD (Hole Accumulated Diode) sensors •700TV lines of horizontal luminance resolution thanks to the high density CCD chips (470,000 total picture elements/440,000 effective picture elements) and Sony's original spatial offset technology •The Power HAD sensor structure in combination with advanced electronic circuitry allows an excellent S/N ratio of •Electronic shutter equipped •2-line image enhancer for crisp image •Modular design allows choice of combo stand-alone or multi-camera use •Can be combined with the DSR-1P DVCAM Digial Recorder, allowing simple ClipLink function •Can be docked directly with the PVV-1AP/3P for high quality component acquisition •Can be combined with S-VHS recorders from Panasonic or JVC via the CA-512P or CA-513 Camera Adaptor •When cambined with CA-537P, 26-pin connector on camera adaptor provides signal output in Y/R-Y/B-Y, VBS, Y/C and RGB forms for connection with various equipment •The DXF-601CE: Diecast alminum body, 600TV lines of horizontal resolution, the large eye cup for easy viewing, external TALLY and a new dioptre mechanism for easier dioptre adjustment •Compact size, lightweight, and low power consumption •VCL-714BX cableless 14 × zoom lens •Convenient built-in microphone •Safety Zone and Centre Marker indications in viewfinder •Built-in character generator can generate letters and numbers for titles and dates •5 step auto iris override (+1F stop/+0.5F stop/Preset/ –0.5F stop/-1.0F stop) •Convenient gain-up function (0/+9/+18dB) •Zebra video level indication •Two memory white balance system •ABL (Automatic Black Level) function •RM-M7G remote connector on camera head for remote control in any configuration •Extended system versatility with optional CA-325AP/325B Camera Adaptors, RM-M7G Remote Control Unit, and CCU-M7P/M5P

## Specifications

**General**

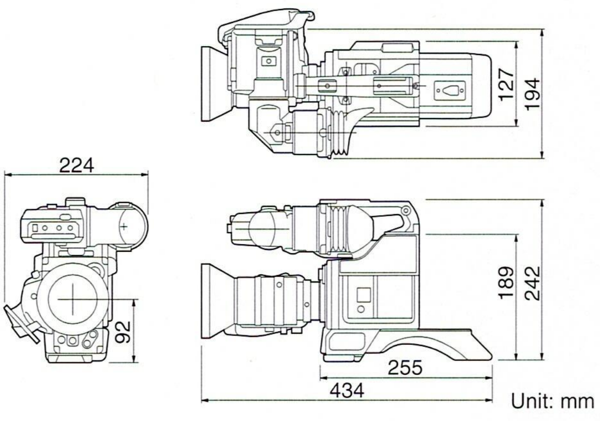
Image device: 1/2-inch Interline Transfer CCD (×3), 795 (H) × 596 (V) total picture elements 752 (H) × 582 (V) effective picture elements
Electronic viewfinder: 1.5-inch monochrome (except DXC-327BPH)
Lens: F1.4, 7.5 to 90mm zoom lens with auto iris/macro mechanism (DXC-327BPF/327BPK)
Lens mount: Bayonet-mount
Video signal system: PAL standard
Horizontal resolution: 700TV lines
Minimum illumination: 6.0 lx with F1.4, +18dB
Sensitivity: F9.0 at 2000 lx
Sync system: Internal or external selectable
S/N ratio: 61dB
Power requirements: DC 12V
Power consumption: 8.0W (without VF/CA-537P)
Operating temperature: –5 to 45°C (23 to 113°F)
Mass: 2.0 kg (4 lb 6 oz, for camera head only) 3.3 kg (7 lb 4 oz, with the CA-537P)

**Inputs/Outputs**

VTR/CCU/CMA: Sony Z-type, 26-pin
VIDEO OUT: BNC-type
GENLOCK: BNC-type
MIC IN: XLR-type, 3-pin
LENS: Hot-shoe type or 6-pin (for 2/3-inch lens)
REMOTE: 10-pin
VF: DIN 8-pin
DC IN: XLR-type, 4-pin
EARPHONE: mini jack
INTERCOM: mini intercom jack

| Model<br>Composition | DXC-327BPF | DXC-327BPK | DXC-327BPL | DXC-327BPH |
|---|---|---|---|---|
| Colour video camera head | Yes | Yes | Yes | Yes |
| Tripod adaptor VCT-U14 | Yes | Yes | Yes | Option |
| Viewfinder DXF-601CE | Yes | Yes | Yes | Option |
| Zoom lens VCL-714BX | Yes | Yes | Option | Option |
| Carrying case LC-421 | Yes | Option | Option | Option |

**Dimensions**



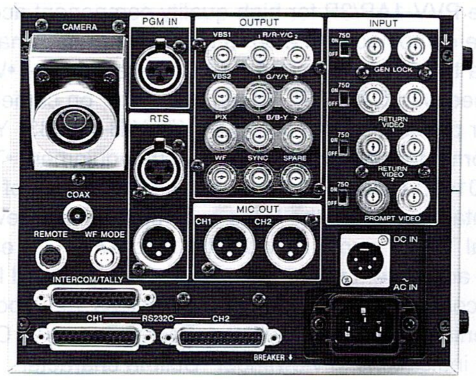
## CCU-TX7P

### Camera Control Unit

•Triax camera control unit for the DXC-D30P and the DXC-637P •Runs either on AC or DC (12 V) power •High speed high quality data transmission •High quality triax transmission •Long distance transmission, up to 1125mm via (phi)13.2mm cable (Belden) and up to 750m via Ø8.5mm cable (Fujikura, Belden) •Two component video outputs (selectable from Y/R-Y/B-Y, R/G/B and Y/C) in addition to two composite output •Two inputs for return video •Colour teleprompter compatible •Flexible intercom system •Program microphone system •RS-232C port •Coaxial control capability •Half a 19-inch rack size wide and 4 units high

SONY
CAMERA CONTROL UNIT
TALLY
CABLE ALARM
SHORT
OPEN
CALL
CAMERA POWER
ON
OFF
INTERCOM
MIC
ON
OFF
LINE
CH1
PRIV
CH2
PGM
INTERCOM
POWER

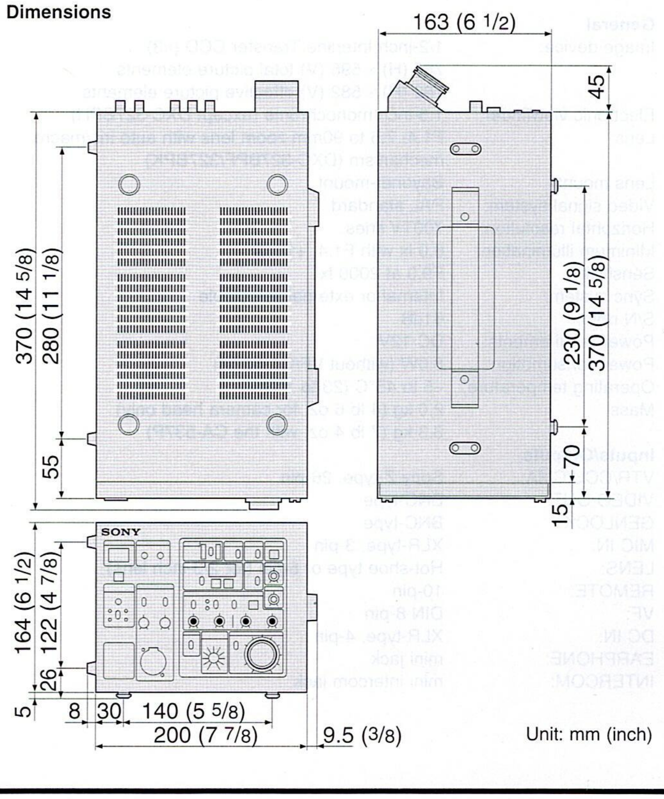
| | |
|---|---|
| Supplied accessories: | AC power cord × 1<br>Plug holder for AC power cord × 1<br>Number plate (1 set)<br>Operation manual × 1 |


CAMERA
PGM IN
OUTPUT
VBS1
R/R-Y/C
VBS2
G/Y/Y
PIX
B/B-Y
WF
SYNC
SPARE
RTS
INPUT
750
ON
OFF
GEN LOCK
RETURN VIDEO
RETURN VIDEO
PROMPT VIDEO
COAX
REMOTE
WF MODE
MIC OUT
CH1
CH2
DC IN
AC IN
INTERCOM/TALLY
CH1
RS232C
CH2
BREAKER

### Specifications

| | |
|---|---|
| Input connectors: | GEN LOCK: BNC type, loopthrough, VBS/BS, 1.0Vp-p, 75ohms<br>RETURN (1,2): BNC type, loopthrough, VBS, 1.0 Vp-p, 75ohms<br>PROMPT (prompter): BNC type, loopthrough, VBS, 1.0 Vp-p, 75ohms<br>PGM IN: XLR 3-pin × 1 |
| Output connectors: | VBS (1,2): BNC type, VBS, 1.0 Vp-p, 75ohms<br>(*)Y/R-Y/B-Y (1,2): BNC type, Y: 1.0Vp-p, 75ohms R-Y/B-Y: 525mVp-p, 75ohms<br>(*)R/G/B (1,2): BNC type, 700mVp-p, 75ohms<br>(*)Y/C (1,2): BNC type, Y: 1.0Vp-p, 75ohms C: 300mVp-p, 75ohms<br>SYNC: BNC type, VBS, 0.3 Vp-p, 75ohms, negative<br>PIX (picture monitor): BNC type, 1.0 Vp-p, 75ohms<br>WF (waveform monitor): BNC type, 700 mVp-p, 75ohms (Encoded output: 1.0 Vp-p, 75ohms)<br>WF MODE: 4-pin × 1<br>MIC OUT (CH-1/2): XLR 3-pin × 2, 0dBu/–20dBu balanced, 2 channels |
| Camera control: input/output: connectors: | CAMERA: Triax (Fischer type) × 1<br>COAX: BNC type × 1<br>REMOTE: 10-pin<br>INTERCOM/TALLY: D-sub 25-pin x 1 4W/2W TALLY: 24V DC, TTL level or contact selectable<br>INTERCOM (Front): XLR 5-pin × 1<br>RTS: XLR 3-pin × 1<br>RS232C: D-sub 25-pin × 2 |
| Power requirements: | AC 220 to 240V or DC 10.5 to 17.0V |
| Power consumption: | 95W max. |
| Cable length: | 1500 m max. (±14.5 mm) |
| Operating temperature: | 5°C to 40°C (41°F to 104°F) |
| Storage temperature: | –20°C to 55°C (–4°F to 131°F) |
| Mass: | Approx. 8.45 kg (18 lb 10 oz) |
| Dimensions: | 218 (W) × 169 (H) × 415 (D) mm<br>(8⁵/₈ × 6³/₄ × 16³/₈ inches) |

**Dimensions**


163 (6 1/2)
45
370 (14 5/8)
280 (11 1/8)
55
230 (9 1/8)
370 (14 5/8)
70
15
SONY
164 (6 1/2)
122 (4 7/8)
26
5
8
30
140 (5 5/8)
200 (7 7/8)
9.5 (3/8)

Unit: mm (inch)

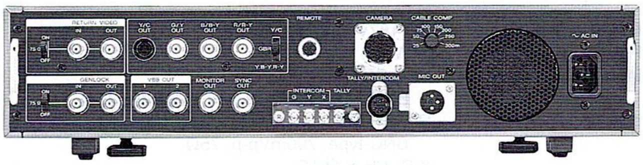
(*) These CCU output signals can be selected to be R/G/B or Y/R-Y/B-Y or Y/C.
(Note: This product is not available in some countries.)

## CCU-M7P

### Camera control unit for DXC-D30P/D30WSP/637P/327BP/930P series

•Remote Control of DXC-D30P/D30WSP/637P/327BP/930P series colour video camera with maximum cable length of 300m •Scene File memory for up to four shooting conditions (excl. DXC-930P) •VBS, R/G/B, Y/R-Y/B-Y, Y/C outputs •XLR connector for MIC output •Built-in AC power supply •19-inch rack mountable and 2-units high

SONY
2
POWER
CAMERA CONTROL UNIT CCU-M7
MASTER PEDESTAL


RETURN VIDEO
IN
OUT
Y/C OUT
G/Y OUT
B/B-Y OUT
R/R-Y OUT
Y/C
GBR
Y-B-Y-R-Y
REMOTE
CAMERA
CABLE COMP
TALLY/INTERCOM
MIC OUT
GENLOCK
VBS OUT
MONITOR OUT
SYNC OUT
INTERCOM
TALLY
AC IN

### Specifications

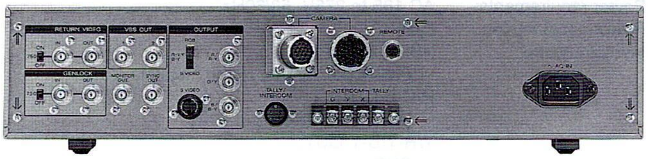
| | |
|---|---|
| Power requirements: | AC 185 to 275V, 50/60Hz |
| Power consumption: | 62W |
| Inputs/outputs: | VBS OUT (x2);<br>BNC-type, 1.0Vp-p, sync negative, 75Ω<br>R/G/B OUT;<br>BNC-type, 700mVp-p, 75Ω<br>Y/R-Y/B-Y OUT;<br>BNC-type,<br>Y: 1.0Vp-p, sync negative, 75Ω<br>R-Y/B-Y: 525mVp-p (75% colour bars)<br>Y/C OUT;<br>Y/C connector (4-pin),<br>Y] 1.0Vp-p, sync negative, 75Ω<br>C] 300mVp-p, 75Ω<br>SYNC OUT;<br>BNC-type, 4.0Vp-p, 75Ω, negative<br>GENLOCK IN;<br>BNC-type, VBS (1.0Vp-p) or<br>BS (300mVp-p), loop through<br>RET VIDEO IN;<br>BNC-type, VBS, 1.0Vp-p, loop-through<br>CAMERA;<br>Sony Z-type, 26-pin<br>TALLY/INTERCOM;<br>DIN 4-pin or screw terminals<br>MIC OUT;<br>XLR-type, 3-pin, –20dBu |
| Control: | Gain select<br>Output mode select<br>Status display ON/OFF<br>Shutter speed select<br>Iris (auto/manual)<br>White balance (auto/manual/preset)<br>R/B gain<br>Black balance (auto/manual/preset)<br>Master pedestal<br>R/B pedestal*<br>Gamma (manual/preset)<br>Master gamma*<br>R/B gamma*<br>Knee point (auto/manual/preset)*<br>Detail level<br>Sub-carrier phase<br>Horizontal phase<br>Scene File operation*<br>Tally/Intercom* |
| Operating temperature: | –10 to 45°C (14 to 113°F) |
| Dimensions: | Approx. 424 (W) × 103 (H) × 387 (D) mm<br>($16\,^{3}/_{4} \times 4\,^{1}/_{8} \times 15\,^{1}/_{4}$ inches) |
| Mass: | 8.5 kg (18 lb 12 oz) |
| Supplied accessories: | AC power cord<br>Rack mount metals |
| Optional cables: | |
| (CCU-M7P ↔ DXC-D30P/D30WSP/637P/327BP series) | CCZ-A2 (2m)<br>CCZ-A5 (5m)<br>CCZ-A10 (10m)<br>CCZ-A25 (25m)<br>CCZ-A50 (50m)<br>CCZ-A100 (100m) |
| (CCU-M7P ↔ DXC-930P) | CCTZ-3RGB (3m) or<br>CCTZ-3YC (3m) with<br>CCZ-A cable |
| (CCU-M7P ↔ RM-930) | CCMC-1210P3 (3m) |

* Note: When used with the DXC-930P, these items can not be controlled.

## CCU-M5P

### Camera control unit for DXC-D30P/D30WSP/637P/327BP/950P/930P

•Directly interfaces with both Z-type (26-pin) and Q-type (14-pin) camera systems •Also interfaces with DXC-950P/930P via CCTZ/CCZ-A or CCTQ/CCQ-AM combination •The focus and zoom can be also controlled by connecting RM-930 with CCMC-1210P3 cable •Remote control operation with maximum cable lengths of 300m for Z-type and 100m for Q-type cable VBS, R/G/B, Y/R-Y/B-Y, Y/C output •Built-in AC power unit •19-inch rack mountable and 2-units high



**Specifications**

| | |
|---|---|
| Power requirements: | AC 187V to 275V, 50/60Hz |
| Power consumption: | 54W |
| Inputs/outputs: | VBS OUT (×2);<br>BNC-type, 1.0Vp-p, sync negative, 75Ω<br>R/G/B OUT;<br>BNC-type, 700mVp-p, 75Ω<br>Y/R-Y/B-Y OUT;<br>BNC-type<br>Y: 1.0Vp-p, sync negative, 75Ω<br>R-Y/B-Y: 525mVp-p (75% colour bars)<br>Y/C OUT;<br>Y/C connector (4-pin),<br>[Y] 1.0Vp-p, sync negative, 75Ω<br>[C] 300mVp-p, 75Ω<br>SYNC OUT;<br>BNC-type, 4.0Vp-p, 75Ω, negative<br>GENLOCK IN;<br>BNC-type, VBS(1.0Vp-p) or<br>BB(450mVp-p), loop-through<br>RET VIDEO IN;<br>BNC-type, VBS, 1.0Vp-p, loop-through<br>CAMERA;<br>Sony Q-type, 14-pin<br>Sony Z-type, 26-pin<br>TALLY/INTERCOM;<br>DIN 4-pin or screw terminals |
| Control: | Gain select<br>Output mode select<br>Status display<br>Shutter speed select<br>Iris (auto/manual)<br>White balance (auto/manual/preset)<br>Black balance (auto/manual/preset)[*1]<br>R/B gain<br>Master pedestal<br>R/B pedestal<br>Gamma (DXC-950P/930P only)<br>Knee point (auto/manual/preset)[*1,2]<br>Detail level<br>Sub-carrier phase<br>Horizontal phase<br>Tally/Intercom[*1,2]<br>Zoom (DXC-950P/930P only, by connecting RM-930 with CCMC-1210P3)<br>Focus (DXC-950P/930P only, by connecting RM-930 with CCMC-1210P3) |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Dimensions: | Approx. 424 (W) × 103 (H) × 321 (D) mm<br>($16^3/_4 \times 4^1/_8 \times 12^3/_4$ inches) |
| Mass: | 5.9 kg (13 lb) |
| Supplied accessories: | AC power cord<br>Rack mount brackets |

Optional cables:

| | |
|---|---|
| (CCU-M5P ↔ DXC-D30P/D30WSP/637P/327BP) | |
| | CCZ-A2 (2m)<br>CCZ-A5 (5m)<br>CCZ-A10 (10m)<br>CCZ-A25 (25m)<br>CCZ-A50 (50m)<br>CCZ-A100 (100m) |
| (CCU-M5P ↔ DXC-950P/930P) | |
| | CCTZ-3RGB (3m) & CCZ-A Cable<br>CCTZ-3YC (3m) & CCZ-A Cable<br>CCTQ-3RGB (3m) & CCQ-AM Cable |
| (CCU-M5P ↔ RM-930) | CCMC-1210P3 (3m) |

Note: [*1] When used with the DXC-950P, these items can not be controlled.
[*2] When used with the DXC-930P, these items can not be controlled.

# 2. Production camera accessories

## CMA-8ACE

### Camera adaptor for DXC-D30P/ D30WSP/637P 327BP/Betacam SP 2000 PRO camcorders, EVW series

- Supplies DC power to the Camera, VO-8800P and dockable VTRs
- Video output is selectable between composite (BNC) or Y/C separate (S-connector)

Input connector:
    14-pin (CCQ type) for the camera
Output connectors:
    VIDEO OUT: BNC; VBS
    S-connector; Y/C
    MIC OUT: XLR 3-pin
Power requirements:
    AC 110/127/220/240V, 50/60Hz
Power consumption:
    95W max.
Dimensions: 105(W) × 105(H) × 308(D)mm
    ($4^1/_4 \times 4^1/_4 \times 12^1/_4$ inches)
Mass: 2.8 kg (6 lb 3 oz)
Supplied accessory:
    AC power cord

SONY
POWER
CMA-8A

VIDEO OUTPUT
MIC OUT
AC IN
CAMERA/VTR

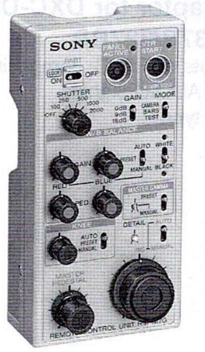
## RM-M7G

### Remote control unit for DXC-D30P/ D30WSP/637P/327BP

- Compact and lightweight hand-held control unit
- For field production or video operational panel for CCU-M7P/M5P

Power requirements:
    DC 9 to 17V, from a camera or a CCU
Power consumption:
    0.4W
Mass: 500 g (1 lb 2 oz)
Dimensions: Approx.
    86 (W) × 170 (H) × 47 (D) mm
    ($3^1/_2 \times 6^3/_4 \times 1^7/_8$ inches)

Inputs/outputs:
    CAMERA: 10-pin
    MONITOR OUT: BNC-type
    AUXILIARY IN: 10-pin
Control: Gain select
    Output mode select
    VTR start/stop
    Iris (auto/manual)
    Auto iris override
    White and black balance
    (auto/manual/preset)
    White balance memory
    R/B gain
    Gamma (manual/preset)
    Master pedestal (manual/preset)
    R/B pedestal
    Knee point (auto/manual/preset)
    Shutter speed select
    Detail
    Lock (ON/Part/OFF)



## RM-LG1

### Remote Control Unit

- Remote controller of DXC-D30P/D30WSP for ClipLink logging operation
- Especially useful in case that the camera operator concentrates only on shooting and logging should be done by another crew

Dimensions: 25 (H) × 85 (W) × 12 (D) mm
    ($1 \times 3^3/_8 \times ^1/_2$ inches)
    (without projecting parts)
Weight: Approx. 50 g (1.8 oz)
    (including a cable)
Cable: Length: 5 m
    Connector: mini-plug
Operating temperature:
    –10°C to 45°C (14°F to 113°F)
Storage temperature:
    –20°C to 60°C (–4°F to 140°F)

Supplied accessories:
    Stickers (1 set)
    Binding ties (4)
    Panning rod mounting bracket (1)
    Operating instructions (1)

VTR
MARK
SONY
RM-LG1

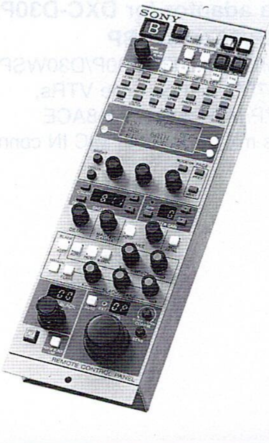
## RCP-TX7

### Remote Control Panel

- Remote Control Panel of the CCU-TX7P
- Covers the complete range of control functions
- Can be installed into a standard 19-inch rack with RMM-TXR7 Rack Mount Kit

Power requirements:
    10 to 17V
    (supplied from camera or CCU)
Power consumption:
    4.0W
Operating temperature:
    –10°C to 45°C (14°F to 113°F)
Storage temperature:
    –20°C to 55°C (–4°F to 131°F)
Mass: Approx. 1.5 kg (3 lb 5 oz)

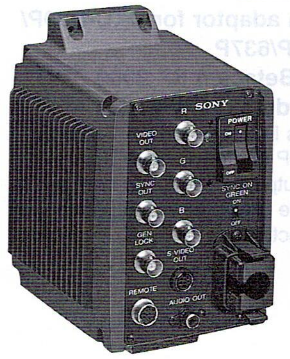
Dimensions: 100 (W) × 330 (H) × 70 (D) mm
    ($4 \times 13 \times 2^7/_8$ inches)
Cable length: 50m max. (with CCA-7 cable)
Supplied accessories:
    CCA-7-5 Connecting Cable (5m)
    Number plate (1set)
    Screws and washers × 2
    Operation manual × 1



## CA-325AP
## Camera adaptor for DXC-D30P/ D30WSP/637P/327BP

- Multiple outputs of R/G/B, composite sync, VBS, Y/C and AUDIO signals
- Built-in AC power unit

Power requirements:
AC 220/240V, 50/60Hz
Power consumption:
44W
Inputs/outputs:
INTERFACE; 50-pin
VBS OUT; BNC-type
R/G/B OUT; BNC-type (×3)
COMPOSITE SYNC OUT; BNC-type
Y/C OUT;
Y/C connector (Mini DIN 4-pin)
AUDIO OUT; Phono jack
GENLOCK IN; BNC-type
REMOTE; 10-pin
Mass: 1.3 kg (2 lb 14 oz)


SONY
R
G
B
POWER
VIDEO OUT
SYNC OUT
GEN LOCK
S VIDEO OUT
SYNC ON GREEN
REMOTE
AUDIO OUT

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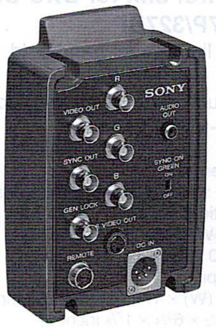
## CA-325B
## Camera adaptor for DXC-D30P/ D30WSP/637P/327BP

- Multiple outputs of R/G/B, composite sync, VBS, Y/C and AUDIO signals
- DC operation type

Power requirements:
DC 12V
Inputs/outputs:
INTERFACE; 50-pin
VBS OUT; BNC-type
R/G/B OUT; BNC-type (×3)
COMPOSITE SYNC OUT; BNC-type
Y/C OUT;
Y/C connector (Mini DIN 4-pin)
AUDIO OUT; Phono jack
GENLOCK IN; BNC-type
REMOTE; 10-pin
DC IN;I XLR-type, 4-pin
Mass: 500 g (1 lb 2 oz)


SONY
R
G
B
VIDEO OUT
AUDIO OUT
SYNC OUT
SYNC ON GREEN
GEN LOCK
S VIDEO OUT
REMOTE
DC IN

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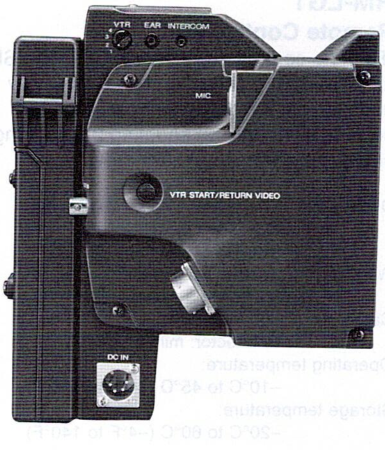
## CA-327P
## Camera adaptor for DXC-D30P/ D30WSP/637P/327BP

- For interfacing DXC-D30P/D30WSP/ 637P/327BP with portable VTRs, CCU-M5P and CMA-8ACE
- Equips an S-connector and audio out connector
- The units with serial NO. 40100 and below can be used only with DXC-327P

Power requirements:
DC 12V
Inputs/outputs:
INTERFACE; DIN 50-pin
VTR/CCU/CMA; Sony Q-type, 14-pin
MIC IN; XLR-type, 3-pin
DC IN; XLR-type, 4-pin
GENLOCK IN; BNC-type
EARPHONE; mini jack
INTERCOM; mini intercom jack
Mass: 1.2 kg (21 lb 10 oz)


VTR
EAR
INTERCOM
MIC
VTR START/RETURN VIDEO
DC IN

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## CA-537P
## Camera adaptor for DXC-D30P/ D30WSP/637P/327BP

- For interfacing DXC-D30P/D30WSP/ 637P/327BP with portable VTRs, CCU-M7P/M5P and CMA-8ACE
- Supplies mic power from MIC IN connector

Power requirements:
DC 12V
Power consumption:
1.7W
Inputs/outputs:
INTERFACE; DIN 50-pin
VTR/CCU/CMA; Sony Z-type, 26-pin
MIC IN; XLR-type, 3-pin
DC IN; XLR-type, 4-pin
GENLOCK IN; BNC-type
EARPHONE; mini jack
INTERCOM; mini intercom jack
Mass: 1.3 kg (2 lb 14 oz)

VTR
EAR
INTERCOM
MIC
VTR START/RETURN VIDEO
DC IN

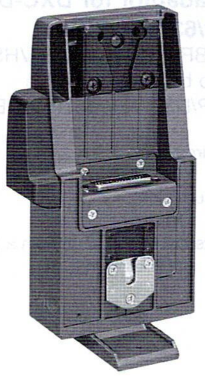
## CA-511

### Camera adaptor for DXC-D30P/ D30WSP/637P/327BP

- Allows a BVV-5PS to be coupled with a DXC-D30P/D30WSP/637P/327P

Power requirements:
DC 12V
Power consumption:
0.1W
Inputs/outputs:
INTERFACE; DIN 50-pin
Betacam output; D-sub 50-pin
Mass: 0.5 kg (1 lb 2 oz)

Note: The CA-511 does not allow connection with the CA-50P/50AP series camera adaptors.



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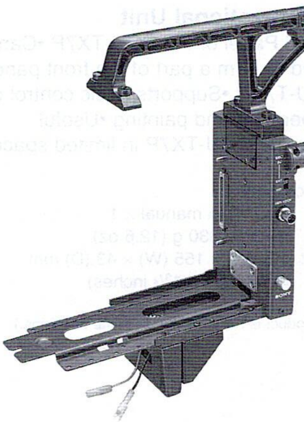
## CA-512P

### Camera adaptor for DXC-D30P/ D30WSP/637P/327BP

- Allows an AG-7450 Panasonic S-VHS video tape recorder to be coupled with a DXC-D30P/D30WSP/637P/327BP

Power requirements:
DC 12V
Power consumption:
0.35W
Input/outputs: INTERFACE; 50-pin ×1
68-pin ×1
Mass: 0.7 kg (1 lb 9 oz)



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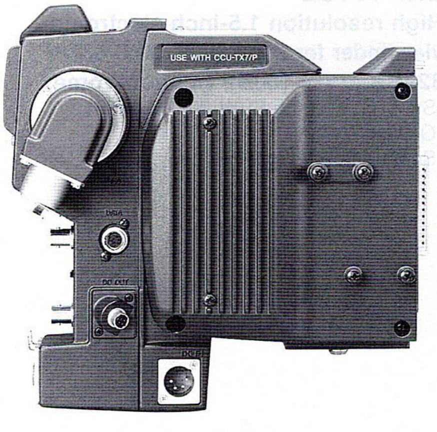
## CA-TX7P

### Camera Adaptor

- Camera Adaptor for the DXC-D30P/D30WSP/637P to the CCU-TX7 Triax Camera Control Unit.
- Rotary (70°) triax connector for easy cabling
- Allows box cursor indication on the viewfinder attached to the DXC-D30P/D30WSP, such as DXF-701CE/701WSCE/51/41. (This function is not available with the DXC-637P)



Supplied accessory:
Operation manual x 1
Input/output connectors:
CCU: Triax (Fischer type) × 1
CAMERA: Pro 76P Digital or
Pro 50P switchable
MIC IN (CH-1/2): XLR 3-pin × 2,
600ohms, balanced
Input level: Mic in: –60dB
Line in: –20dB
DC IN: XLR 4-pin × 1,10.5V to 17V
DC OUT: 4-pin × 1, 10.5V to 17V,
Max 12W
PROMPTER OUT: BNC type × 1,
1.0Vp-p, 75ohms
RETURN OUT: BNC type × 1,
1.0Vp-p, 75ohms
INTERCOM/PROGRAMME:
XLR 5-pin × 1 (for Headset)
Input level: -60dBs (dynamic)
Output level: Åá to 12dBs
DATA OUT: 10-pin × 1
DC 0 to 5V (analogue) × 4
DC 0 or 5V (digital) × 2
Power requirements
DC 120V (from Triax connector) or
DC 12V (10.5 to 17.0V) (from DC IN connector)

Power consumption

| | DC 120V | | DC 12V | |
|---|---|---|---|---|
| | CA-TX7P | Total | CA-TX7P | Total |
| CA-TX7P only | 10.5W | 10.5W | 7.5W | 7.5W |
| w/DXC-D30P, DXF-701WSCE | 11.2W | 26W | 7.5W | 22.3W |
| w/DXC-D30P, DXF-51 | 12.3W | 35W | 7.5W | 30.2W |

Operating temperature:
-10 °C to 45 °C (14 °F to 113 °F)
Storage temperature:
-20 °C to 55 °C (-4 °F to 131 °F)
Operating humidity:
20% to 90%
Mass: Approx. 2.7 kg (5 lb 15oz)
Dimensions: 226 (H) × 221 (W) × 131 (D) mm
(9 × $8\frac{3}{4}$ × $5\frac{1}{4}$ inches)

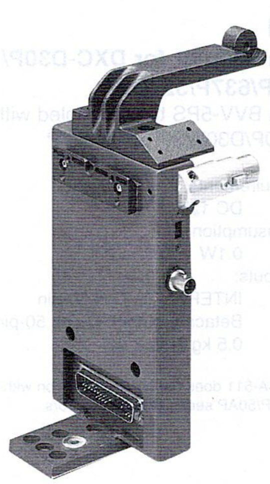
(Note: This product is not available in some countries.)

## CA-513

### Camera adaptor for DXC-D30P/D30WSP/637P/327BP

•Allows a BR-S422E JVC S-VHS video tape recorder to be coupled with a DXC-D30P/D30WSP/637P/327BP

Power requirements:
DC 12V
Power consumption:
0.15W
Input/outputs: INTERFACE: 50-pin × 2
Mass: 0.69 kg (1 lb 8 oz)



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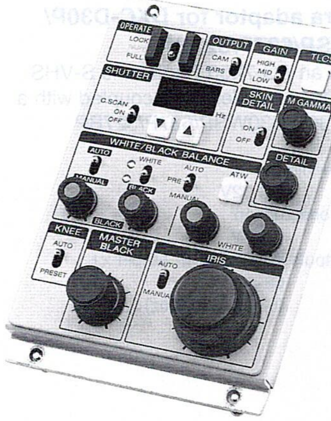
## COU-TX7

### Camera Operational Unit

•Operational Panel of the CCU-TX7P •Can be attached to form a part of the front panel of the CCU-TX7P •Supports basic control of camera operation and painting •Useful when using the CCU-TX7P in limited space

Supplied accessory:
Operation manual × 1
Mass: Approx. 330 g (12.6 oz)
Dimensions: 105 (H) × 155 (W) × 43 (D) mm
(4$^{1}/_{4}$ × 6$^{1}/_{8}$ × 1$^{3}/_{4}$ inches)

(Note: This product is not available in some countries.)


OPERATE
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C.SCAN
ON
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SKIN DETAIL
M.GAMMA
WHITE/BLACK BALANCE
AUTO
WHITE
MANUAL
BLACK
PRE
ATW
DETAIL
KNEE
PRESET
MASTER BLACK
IRIS

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## DXF-501CE

### High resolution 1.5-inch electronic viewfinder for EVW-300P, DXC-637P/327BP, UVW-100BP (monochrome)

•Supplied with the EVW-300PK/300PL
•Quick start CRT
•Sophisticated diopter design

Picture tube: 1.5-inch 50° deflection
Horizontal resolution:
550 lines (centre)
Power requirements:
DC 12V, supplied from a camera
Power consumption:
2.3W
Mass: Approx. 500 g (1 lb 2 oz)
Dimensions: Approx.
182 (W) × 64 (H) × 189 (D) mm
(7$^{1}/_{4}$ × 2$^{5}/_{8}$ × 7$^{1}/_{2}$ inches)

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## DXF-601CE

### High resolution 1.5-inch electronic viewfinder for DXC- 637P/327BP, UVW-100BP (monochrome)

•Supplied with DXC-637PK/637L, PVW-637PK/637PL, DXC-327BPF/327BPK/327BPL UVW-100BPF/100BPK/100BPL
•Rugged, diecast aluminium body
•Large eye cup size
•Peak volume control
•High horizontal resolution of 600TV lines
•Quick start CRT

Picture tube: 1.5-inchmonochrome
Horizontal resolution:
600 lines (centre)
Indicator: REC/TALLY indicator, BATT indicator, SHUTTER indicator, GAIN UP indicator
Power requirements:
DC 12V
Power consumption:
2.1W
Mass: 660 g (1 lb 7 oz)
Dimensions: Approx.
192 (W) × 63 (H) × 219 (D) mm
(7$^{5}/_{8}$ × 2$^{1}/_{2}$ × 8$^{5}/_{8}$ inches)

## DXF-701WSCE
### High resolution 1.5-inch electronic viewfinder for DXC-D30P/D30WSP (monochrome)

- Supports 16:9 and 4:3 aspect ratio
- Rugged, diecast aluminium body
- Large eye cup size
- Two Red REC Tally Lamps
- Peak volume control
- High horizontal resolution of 600TV lines
- Quick start CRT

Picture tube: 1.5-inchmonochrome
Horizontal resolution:
600 lines (centre)
Indicator:
REC × 2, TAKE, BATT, SHUTTER, GAIN UP
Power requirements:
DC 12V
Power consumption:
2.1W
Mass: 660 g (1 lb 7 oz)
Dimensions: Approx.
236 (W) × 85 (H) × 219 (D) mm
($9^3/_8$ × $3^1/_4$ × $8^5/_8$ inches)

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## DXF-41
### 4-inch electronic viewfinder for DXC-D30P/D30WSP/637P/327BP, UVW-100BP, EVW-300P (monochrome)

- CCIR/EIA switchable
- Tally, intercom facilities
- Can be mounted into the RMM-1800 rack mounting metal

Picture tube: 4-inch monochrome,
50° deflection
Horizontal resolution:
500 lines (centre)
Connectors: DIN 8-pin connector
Phone and mini for intercom
Power requirements:
Supplied from a camera

Power consumption:
10W
Operating temperature:
0 to 40°C (32 to 104°F)
Dimensions: Approx.
105 (W) × 107 (H) × 252 (D) mm
($4^1/_4$ × $4^1/_4$ × 10 inches)
including projecting parts and controls
Mass: Approx. 1.62 kg (3 lb 9 oz)
with stand and hood

Supplied accessories:
Stand (1), Screws (4), Hood (1)
Connecting cord (mini-mini) (1)

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## DXF-51
### 5-inch Monochrome Viewfinder

•High horizontal resolution of 650 TV lines •Stable video image •Bright and clear color image •Under Scanning capability •Can operate either on EIA and CCIR signals systems with automatic selection •16:9/4:3 Automatic Aspect Ratio Selection •The viewfinder aspect ratio of the DXF-51 is automatically switched between 16:9 and 4:3 •Two red REC tally lamps •Green Tally Lamp which can be used as a second tally lamp for CCU operations •20-pin connector for DXC-D30P/D30WSP •DIN 8-pin connector for DXC-327BP/637P etc. •+/- 40 degrees of tilting is possible •+/- 90 degrees of panning is possible •Rugged and compact body

Supplied accessories:
Hood, 20-pin Cable,
DIN 8-pin Cable,
Operation Manual

**Specifications**
Picture tube: 5-inch monochrome, 70° deflection
Scanning system:
2:1 interlace, 625/50 or 525/59.94 switchable
Horizontal resolution:
650TV lines (center)
Camera connector:
20-pin or DIN 8-pin connector
Power requirements:
DC 12V +5.0/-1.5V (supplied from a camera)
Power consumption:
11W
Operating temperature:
0°C to 40°C (32°F to 104°F)
Mass: Approx.2.4 kg (5 lb 5 oz) with stand and hood
Dimensions: Approx. 202 (H) × 199 (W) × 217 (D) mm
(8 × $7^7/_8$ × $8^5/_8$ inches)

including projecting parts and controls
Approx. 202 (H) × 199 (W) × 289 (D) mm
(8 × $7^7/_8$ × $11^1/_2$ inches)
with stand and hood

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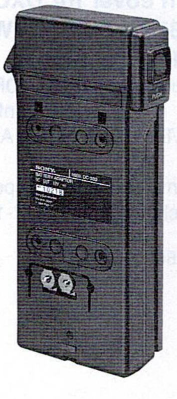
## DC-520
### Battery adaptor for DXC-D30P/D30WSP/637P/327BP, UVW-100BP, EVW-300P

- For attaching two NP-1B battery packs to the DXC-D30P/D30WSP/637P/327BP, UVW-100BP, EVW-300P

Dimensions: Approx.
100 (W) × 195 (H) × 44 (D) mm
(4 × $7^3/_4$ × $1^3/_4$ inches)
Mass: Approx. 230 g (8 oz)



## DR-100

### Intercommunication headset

- Used in the DXC-D30P/D30WSP/637P/327BP, UVW-100BP, CCU-M5P/M7P, SEG-2550AP/2000AP
- With mini type 4-pole plug

Mass: 105 g (3.7 oz)

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## LC-421

### Carrying case for DXC-D30P/D30WSP/637P, DXC-327BP, UVW-100BP

- Can hold the DXC-D30P/D30WSP/637P/327BP in camcorder configuration with DSR-1P/PVV-1AP/PVV-3P/EVV-9000P
- Supplied with the PVW-637PK/637PL, PVW-D30F, DSR-130PF, UVW-100BPF

Dimensions: Approx.
790 (W) × 440 (H) × 340 (D) mm
($31^{1}/_{8}$ × $17^{3}/_{8}$ × $13^{1}/_{2}$ inches)
Mass: 7.7 kg (17 lb)

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## LC-304SFT

### Soft carrying case for DXC-D30P D30WSP/637P/327BP, EVW-300P, UVW-100BP

- Can hold DXC-D30P/D30WSP/637P/327BP in camcorder configuration with DSR-1P/BVV-5PS/PVV-1AP/PVV-3P/EVV-9000P
- Lightweight for easy transportation

Dimensions: Approx.
720 (W) × 360 (H) × 286 (D) mm
($28^{3}/_{8}$ × $14^{1}/_{4}$ × $11^{3}/_{8}$ inches)
Mass: 2.2 kg (4 lb 14 oz)

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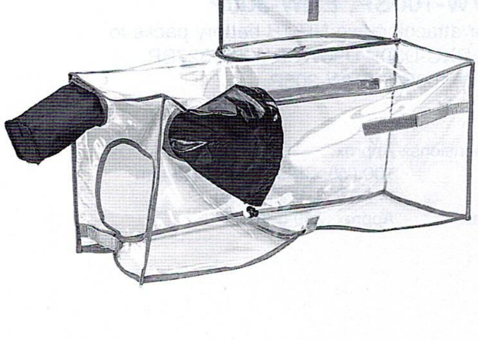
## LCR-1

### Camera rain cover for DXC-D30P/D30WSP/637P/327BP, EVW-300P, UVW-100BP camcorders

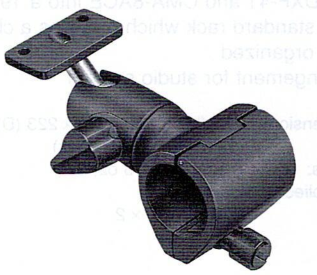
- Can be used for the DXC-D30P/D30WSP/637P/327BP, in camcorder configuration with DSR-1P/BVV-5PS/PVV-1AP/PVV-3P/EVV-9000P
- Transparent material used to operate camera and VTR switches with the LCR-1 on

Mass: 260g (9 oz)



## CAC-12
### Camera microphone holder

- Adjustable microphone direction
- For attaching the ECM-672/670 or the C-74 condensor microphone to the DXC-D30P/D30WSP/637P/327BP, EVW-300P and UVW-100BP



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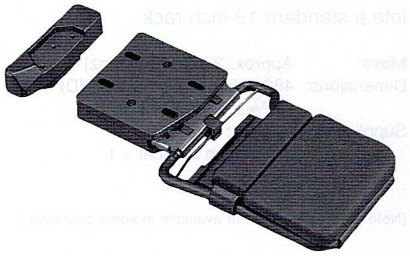
## CAC-4
### Chest pad for DXC-D30P/D30WSP/637P/327BP, EVW-300P, UVW-100BP

- Provides more stable camera operation
- Attachable to the VCT-12/14 /U14 tripod adaptors directly

Mass: Approx. 185 g (7 oz)



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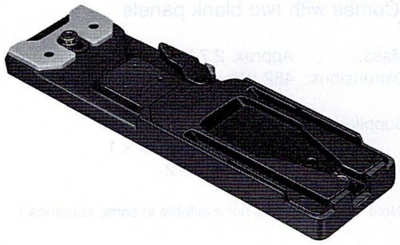
## VCT-14
### Tripod adaptor for DXC-D30P/D30WSP/637P/327BP, UVW-100BP

- To attach the DXC-D30P/D30WSP/637P/327BP and UVW-100BP to a tripod
- Adjustable camera position with screws

Dimensions: Approx.
282 (W) × 27 (H) × 80 (D) mm
($11\,^{1}/_{8} \times 1\,^{1}/_{8} \times 3\,^{1}/_{4}$ inches)
Mass: Approx. 900 g (2 lb)



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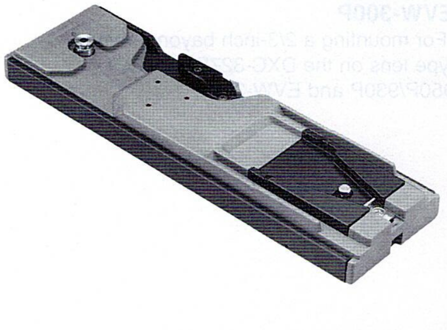
## VCT-U14
### Tripod adaptor for DXC-D30P/D30WSP/637P/327BP, UVW-100P

- Adjustable camera position with screws

Dimensions: 282 (W) × 27 (H) × 80 (D) mm
($11\,^{1}/_{8} \times 1\,^{1}/_{8} \times 3\,^{1}/_{4}$ inches)
Mass: Approx. 900 g (2 lb)

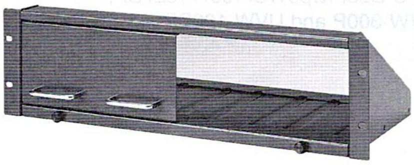


## RMM-1800

### Rack-mounting metal

•This mounting adaptor is used for installing the DXF-41 and CMA-8ACE into a 19-inch EIA standard rack which provides a clean and organized arrangement for studio system

Dimensions: 482 (W) × 136.2 (H) × 223 (D) mm
(19 × $5^{3}/_{8}$ × $8^{7}/_{8}$ inches)
Mass: 3.1 kg (6 lb 13 oz)
Supplied accessories:
Blank panel × 2



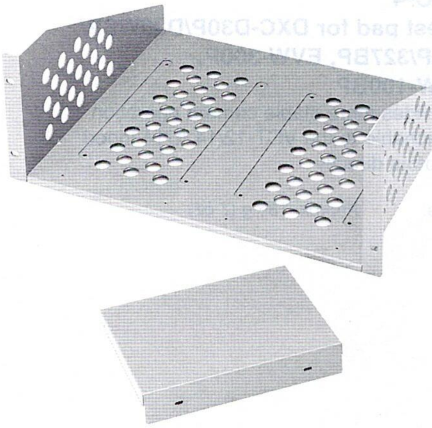
## RMM-TXC7

### Rack Mount Kit

•Allows two CCU-TX7P units or one unit with a waveform monitor to be be mounted into a standard 19-inch rack

Mass: Approx. 3.7 kg (8 lb 3 oz)
Dimensions: 482 (W) × 177 (H) × 380 (D) mm
($19^{1}/_{8}$ × 7 × 15 inches)
Supplied accessories:
Installation manual × 1
Blank panel × 1

(Note: This product is not available in some countries.)



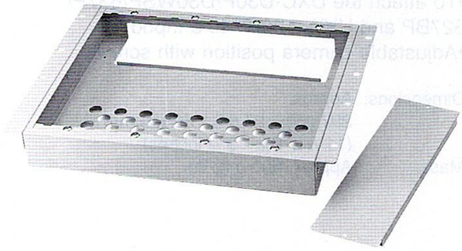
## RMM-TXR7

### Rack Mount Kit

•Up to four RCP-TX7P units can be installed into a standard 19-inch rack
•Comes with two blank panels

Mass: Approx. 2.7 kg (5 lb 12 oz)
Dimensions: 482 (W) × 75 (H) × 354 (D) mm
(19 × 3 × 14 inches)
Supplied accessories
Installation manual × 1
Blank panel × 2

(Note: This product is not available in some countries.)



## LO-32BMT

### 2/3-inch lens mount adaptor for DXC-327AP/9100P/950P/930P and EVW-300P

•For mounting a 2/3-inch bayonet-mount type lens on the DXC-327BP/9100P/950P/930P and EVW-300P

# 2. Production camera accessories

## MVA-40

### Microscope adaptor

- For mounting the DXC-327BP/9100P/950P/930P series onto various types of microscopes
- Automatic/manual light control

Dimensions: 74 (dia.) × 108(L) mm
(max. width of 116 mm)
(3 × $4^{3}/_{8}$ inches)
(max. width of 4 5/8 inches)
Mass: 600 g (1 lb 5 oz)

AUTO
MANU
GAIN

## MVA-41A

### Microscope adaptor

- For mounting the DXC-327BP/9100P/950P/930P series onto various types of microscopes

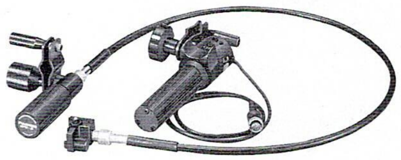
Dimensions: 50(dia.) × 77(L)mm
($2 \times 3^{1}/_{8}$ inches)
Mass: 180g (6 oz)

## LO-23

### Flexible cable unit

- Servo zooming and manual focusing for Fujinon Lens, such as VCL-916 BYA and VCL-714BX

Cable length: 1 m (3.3 ft)
Mass: 1.2 kg (2 lb 10 oz)

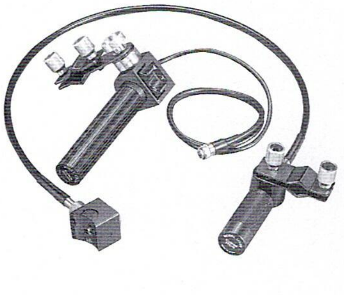


## LO-26

### Flexible cable unit

- Servo zooming and manual focusing for Canon Lenses, such as VCL-918BY

Cable length: 1 m (3.3 ft)
Mass: 1.1 kg (2 lb 7 oz)



**MS-21** (by Canon)
**Remote controller**

- Servo zooming and manual focusing

## VSF-2000D (by Heiwa)
### Tripod/dolly

- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP
- For studio use
- Equipped with two panning rods

Minimum/Maximum height:
700 mm/1400 mm
($27^{5}/_{8}$ inches/$55^{1}/_{8}$ inches)
(without dolly)
Load capacity:
15 kg (33 lb 1 oz)
Mass: 10.5 kg (22 lb 2 oz) with dolly

## VSF-L-20 (by Heiwa)
### Carrying bag for VSF-2000D

Mass: 3.5 kg (7 lb 11 oz)

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## LIBEC 50SD (by Heiwa)
### Tripod/dolly/carrying case

- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP
- Convenient brace as a standard equipment
- For field use
- Equipped with two extendable panning rods

Minimum/maximum height:
925 mm/1495 mm
(36.4 inches/58.9 inches)
Load capacity:
10 kg (22 lb)
Mass: 9 kg (19 lb 8 oz)
Supplied accessories:
Dolly carrying bag, Panning rods, Spreader

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## LIBEC 60SD
## LIBEC 70SD (by Heiwa)
### Tripod/dolly/carrying bag/spreader

- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP
- High efficiency and high performance equipped with patented counter balanced tilting system
- For field use
- Equipped with two extendable panning rods

Minimum/maximum height:
60SD; 810 mm/1580 mm
(31.9 inches/62.2 inches)
70SD; 820 mm/1595 mm
($32^{3}/_{8}$ inches/$62^{7}/_{8}$ inches)
(without dolly)
Load capacity:
60SD; 13 kg (29 lb)
70SD; 15 kg (33 lb 1 oz)
Mass: 60SD; 11 kg (24 lb 10 oz)
70SD; 11.2 kg (24 lb 5 oz)
Supplied accessories:
Dolly, Carrying bag, Panning rods, Spreader

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## LIBEC 80SD (by Heiwa)
### Tripod/dolly/carrying case

- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP, etc.
- Serial drag and counter balance system
- Recommended for field use
- Equipped with two extendable panning rods

Minimum/maximum height:
560 mm/1645 mm
(22 inches/64.7 inches)
Load capacity:
17 kg (37 lb)
Mass: 13 kg (26 lb 1 oz)
Supplied accessories:
Dolly, Carrying bag, Panning rods, Spreader

## LIBEC 70PD (by Heiwa)
## PEDESTAL SYSTEM

- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP
- Air can be pumped into a column even while a camera is mounted on the pedestal
- Highly suitable for small studios, event hall and hospitals

| | |
|---|---|
| Minimum/maximum height: | 955 mm/1710 mm (37⁵/₈ inches/67¹/₂ inches) |
| Load capacity: | 30 kg (66 lb 2 oz) |
| Mass: | 21 kg (46 lb 5 oz) |
| Supplied accessories: | Pedestal, Head,<br>Pan handles,<br>Scenario plate,<br>Low angle adapter |

## System 14 (by Sachtler)

### Video 14/75 Fluid head/Tripod S14 long/Spreader SP14/Cover 14pan

- Suitable for DXC-D30P/D30WSP/637P327BP, EVW aeries, UVW-100BP, etc.
- The patented Sachtler damping system ensures jerk free, precise and smooth camera movement, over a wide temperature range between –40°C (–40°F) to 60°C (140°F)
- Equipped with two panning bars

| | |
|---|---|
| Minimum/Maximum height: | 790 mm/1540 mm<br>(31¹/₈ inches/60³/₄ inches)<br>(with spreader) |
| Load capacity: | 15 kg (33 lb 1 oz) |
| Mass: | 8 kg (17 lb 10 oz) |
| Supplied accessories: | Spreader, two pan bars, carrying cover |

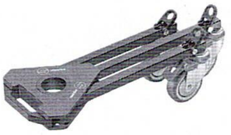
Optional accessory:

**Dolly 14II Code No. 7051**

- The camera becomes mobile with the Dolly 14II for the studio use
- Can be compactly folded together by pressing a button and carried by using the built in handle

Mass: 4.4 kg (9 lb 11 oz)

sachtler
Video 14



Dolly 14II

## System 18 Plus ENG 2 MCF

(by Sachtler)

### Video 18 Plus Fluid head/Tripod ENG 2 CF/Off-ground spreader/Rubber feet/Paaded bag ENG 2

- Suitable for DXC-D30P/D30WSP/637P327BP, EVW aeries, UVW-100BP, etc.
- New Video 18 Plus head has an illuminated bubble, Touch & Go camera lock for one hand operation, a tilt range of 180˚ under any load and many other extras
- With the two stage carbon fibre tripod and off-ground spreader, this system offers the optimum for any portable camera
- Equipped with two extendable pan bars

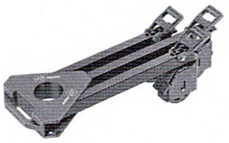
| | |
|---|---|
| Minimum/maximum height: | 580 mm/1665 mm<br>(22.8 inches/65.6 inches) |
| Load capacity: | 25 kg (55 lb) |
| Mass: | 9.5 kg (20 lb 15 oz) |
| Temperature range: | –40 to 60˚C (–40 to 140˚F) |
| Supplied accessories: | Off-ground spreader,<br>Rubber feet,<br>Two pan bars, Paaded bag |

Optional accessory:

**Dolly S Code No. 7065**

- Through the angle lock of the spinning wheel and the independent wheel brake, defined circles and precise parallel movements can be made
- For studio use
- Can be folded together and easily carried with it's built in handle

Mass: 4.45 kg (9 lb 13 oz)



Dolly S

sachtler
Support

## Caddy System 01
## Code No. CAD01 (by Sachtler)

- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series,UVW-100BP, etc.
- The patented Sachtler damping system ensures jerk free, precise and smooth camera movement, over a wide temperature range
- Equipped with one pan arm, 7+7 step fluid damping
- Sachtler flip switch fast balancing system
- Touch & Go quick camera locking system with a sliding range of 60mm

| | |
|---|---|
| Minimum/Maximum height: | 810 mm/1580 mm<br>(31.9 inches to 62.3 inches) |
| Load capacity: | 12 kg (26.4 lb) |
| Mass: | 7.1 kg (15.6 lb) |
| Supplied accessories: | Carbon fiber tripod, CF100long<br>Lightweight spreader, SP100<br>Transport cover, Cover 100 |

## Vision 5-ST Package

(by Vinten)

### Head/Tripod/Spreader/Soft Bag

- The high quality original “perfect-balance” system
- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP

Minimum/maximum height:
534 mm/1704 mm
(21 inches/67 inches)
(with spreader)
Load capacity:
9 kg (20 lb)
Mass: 8.0 kg (17 lb 10 oz) (with bag)
Tilt range: +85°/–75°
Supplied accessories:
Spreader, Soft bag
Optional accessory:
Lightweight dolly (3319-3ST)

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## Vision 10-ST Package

(by Vinten)

### Head/Tripod/Spreader/Soft Bag

- The high quality original “perfect-balance” system
- Suitable for DXC-D30P/D30WSP/637P/327BP, EVW series, UVW-100BP

Minimum/maximum height:
549 mm/1719 mm
($21^{5}/_{8}$ inches/$67^{7}/_{8}$ inches)
Load capacity:
14 kg (30 lb 14 oz)
Mass: 8.3 kg (18 lb 5 oz) (with bag)
Tilt range: +90°/–90°
Supplied accessories:
Spreader, Soft bag
Optional accessory:
Lightweight dolly (3319-3ST)

---

## PRO-130/7GP (by Vinten)

### Head/Tripod/Spreader/Soft Bag

- Suitable for light-weight cameras/camcorders, such as DSR-200P and UVW-100BP
- Low-cost tripod system with smooth pan/tilt operation

Minimum/maximum height:
580 mm/1450 mm
($22^{7}/_{8}$ inches/$57^{1}/_{8}$ inches)
Load capacity:
8 kg (17 lb 10 oz)
Mass: 2.3 kg (5 lb 1 oz)
Tilt range: ±85°
Pan range: 360°

Package configuration:
PH130 Fluid Pan/Tilt Head
3451-3 Tripod
PS165 Spreader
Soft case

---

## PRO-130/10GP (by Vinten)

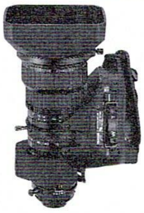
### Head/Tripod/Spreader/Soft Bag

- Suitable for cameras/camcorders such as DSR-130P and PVW-D30P.
- Low-cost tripod system with smooth pan/tilt operation

Minimum/maximum height:
580 mm/ 1450 mm
($22^{7}/_{8}$ inches/$57^{1}/_{8}$ inches)
Load capacity:
10 kg (22 lb 0.7 oz)
Mass: 2.3 kg (5 lb 1 oz)
Tilt range: ±85°
Pan range: 360°
Package configuration:
PH130 Fluid Pan/Tilt Head
3451-3 Tripod
PS165 Spreader
Soft case

### LENSES FOR DXC-D30P/D30WSP/637P, PVW-D30P/637P and DSR-130P camcorder (2/3-inch Bayonet mount type, 12-pin connector)

| | | | | |
|---|---|---|---|---|
| | J9a × 5.2BIRS | J15a × 8BIRS | YJ18 × 9BIRS | J20a × 8BIRS |
| Image format | 2/3-inch | 2/3-inch | 2/3-inch | 2/3-inch |
| Mount | Sony bayonet | Sony bayonet | Sony bayonet | Sony bayonet |
| Focal length | 5.2 to 47 mm | 8 to 119 mm | 9 to 162 mm | 8 to 160 mm |
| Zoom ratio | 9× | 15× | 18× | 20× |
| Zoom control | Manual & motorized | Manual & motorized | Manual & motorized | Manual & motorized |
| Iris control | Auto & manual | Auto & manual | Auto & manual | Auto & manual |
| Maximum aperture ratio | 1.8 | 1.7 | 1.8 | 1.7 |
| Minimum object distance | 0.3 m | 0.65 m | 0.9 m | 0.9 m |
| Zoom extender | 2.0× | 2.0× | 2.0× | 2.0× |
| Macro | Yes | Yes | Yes | Yes |
| Filter size | 82 mmø | 82 mmø | 82 mmø | 105 mmø |
| Mass | 1.8 kg (3.97 lb) | 1.4 kg (3 lb 2 oz) | 1.5 kg (2.87 lb) | 1.75 kg (3 lb 14 oz) |
| Dimensions | 250.94 mm(L) (10 inches) | 266.9 mm(L) (10 5/8 inches) | 194.9 mm(L) (7 3/4 inches) | 232.6 mm(L) (9 1/4 inches) |
| Note | By Canon | By Canon | By Canon | By Canon |

| | | |  | |
|---|---|---|---|---|
| | A10 × 4.8BEVM-28 | A12 × 6.8BRM-58 | A15 × 8BEVM-28B | VCL-916BYA |
| Image format | 2/3-inch | 2/3-inch | 2/3-inch | 2/3-inch |
| Mount | Sony bayonet | Sony bayonet | Sony bayonet | Sony bayonet |
| Focal length | 4.8 to 48 mm | 6.8 to 82 mm | 8 to 120 mm | 9 to 144 mm |
| Zoom ratio | 10× | 12× | 16× | 16× |
| Zoom control | Manual & motorized | Manual & motorized | Manual & motorized | Manual & motorized |
| Iris control | Auto & manual | Auto & manual | Auto & manual | Auto & manual |
| Maximum aperture ratio | 1.8 | 2.5 | 1.7 | 1.8 |
| Minimum object distance | 0.3 m | 0.5 m | 0.75 m | 0.9 m |
| Zoom extender | 2.0× | — | 2.0× | — |
| Macro | Yes | Yes | Yes | Yes |
| Filter size | 127 mmø | 95 mmø | 82 mmø | 77 mmø |
| Mass | 1.85 kg (4.0 lb) | 1.38 kg (3.0 lb) | 1.38 kg (3 lb 1 oz) | 1.2 kg (2 lb 10 oz) |
| Dimensions | 244 mm(L) (9 5/8 inches) | 196 mm(L) (7 3/4 inches) | 189 mm(L) (7 1/2 inches) | 165 mm(L) (6 1/2 inches) |
| Note | By Fujinon | By Fujinon | By Fujinon | By Fujinon |

| | | | |
|---|---|---|---|
| | A16 × 9BERM-28 | A20 × 8BEVM-28B | VCL-918BY |
| Image format | 2/3-inch | 2/3-inch | 2/3-inch |
| Mount | Sony bayonet | Sony bayonet | Sony bayonet |
| Focal length | 9 to 144 mm | 8 to 160 mm | 9 to 162 mm |
| Zoom ratio | 16× | 20× | 18× |
| Zoom control | Manual & motorized | Manual & motorized | Manual & motorized |
| Iris control | Auto & manual | Auto & manual | Auto & manual |
| Maximum aperture ratio | 1.8 | 1.7 | 1.8 |
| Minimum object distance | 0.9 m | 0.85 m | 0.9 m |
| Zoom extender | 2.0× | — | — |
| Macro | Yes | Yes | Yes |
| Filter size | 77 mmø | 95 mmø | 82 mmø |
| Mass | 1.35 kg (3 lb) | 1.75 kg (3.8 lb) | 1.3 kg (2.7 lb) |
| Dimensions | 183.8 mm(L) (7 1/4 inches) | 225.5 mm(L) (9 inches) | 171.5 mm(L) (6 7/8 inches) |
| Note | By Fujinon | By Fujinon | By Canon |

### LENSES FOR DXC-327BP, UVW-100BP (1/2-inch Bayonet mount type, Hot-shoe connector)

| | | | |
|---|---|---|---|
| | VCL-714BX | VCL-713BX | YH14 × 7.3KRS |
| Image format | $^1/_2$-inch | $^1/_2$-inch | $^1/_2$-inch |
| Mount | Sony $^1/_2$-inch bayonet | Sony $^1/_2$-inch bayonet | Sony bayonet |
| Focal length | 7.5 to 105 mm | 7.5 to 97.5 mm | 7.3 to 102 mm |
| Zoom ratio | 14× | 13× | 14× |
| Zoom control | Manual & motorized | Manual & motorized | Manual & motorized |
| Iris control | Auto & manual | Auto & manual | Auto & manual |
| Maximum aperture ratio | 1.4 | 1.4 | 1.4 |
| Minimum object distance | 1.1 m | 1.0 m | 1.0 m |
| Zoom extender | — | — | — |
| Filter size | 72 mmø | 72 mmø* | 82 mmø |
| Mass | 11 kg (2 lb 6 oz) | 910 g (2 lb) | 1.0 kg (2.2 lb) |
| Dimensions | 186 mm(L) ($7^3/_8$ inches) | 147.5 mm(L) ($5^7/_8$ inches) | 184 mm(L) ($7^1/_4$ inches) |
| Lens connector | Hot-shoe type | Hot-shoe type | Hot-shoe type |
| Notes | By Fujinon | By Canon | By Canon |

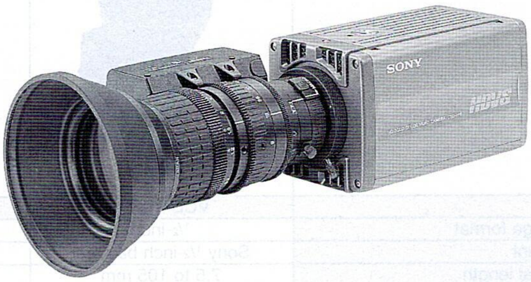
*82mmø Filter is also usable by fitting it in the lens hood.

### LENSES FOR DXC-327BP, UVW-100BP (1/2-inch Bayonet mount type, Hot-shoe connector)

| | | | |
|---|---|---|---|
| | S16 × 6.7BRM-18 | S16 × 6.7BERM-18 | YH17 × 7 KRS |
| Image format | $^1/_2$-inch | $^1/_2$-inch | $^1/_2$-inch |
| Mount | Sony $^1/_2$-inch bayonet | Sony $^1/_2$-inch bayonet | Sony $^1/_2$-inch bayonet |
| Focal length | 6.7 to 107mm | 6.7 to 107mm | 7 to 119mm |
| Zoom ratio | 16× | 16× | 17× |
| Zooming control | Manual & motorized | Manual & motorized | Manual & motorized |
| Iris control | Auto & manual | Auto & manual | Auto & manual |
| Maximum aperture ratio | 1.4 | 1.4 | 1.4 |
| Minimum object distance | 0.9m | 0.9m | 0.95m |
| Zoom extender | — | 2.0× | — |
| Filter size | 77mmø | 77mmø | 82mmø |
| Mass | 1.2kg (2 lb 10 oz) | 1.35kg (3 lb) | 1.45kg (3 lb 3 oz) |
| Dimensions | 165mm(L) ($6^1/_2$ inches) | 188.5mm(L) ($7^1/_2$ inches) | 168.9mm(L) ($6^3/_4$ inches) |
| Lens connector | Hot-shoe type | Hot-shoe type | Hot-shoe type |
| Notes | By Fujinon | By Fujinon | By Canon |

# DXC-H10

## 2/3 inch 3-CCD Color Video Camera
## (not available in Europe)



•Three 2/3 inch IT (Interline Transfer) Hyper HAD™ CCDs •New HDVS (High Definition Video System) camera with 2,000,000 effective picture elements and 1000TV lines of resolution •High sensitivity of F8.0 at 2,000 lux •Compact and light weight: 1200 g •CCD IRIS™ , AGC (Automatic Gain Control) , and Auto Iris function control wide range of incoming light levels •Four pattern Light Metering System with selectable detection method (Multi, Average, Spot, and Peak Mode) •Three white balance modes (AWB, ATW, Manual) •Ten step electronic shutter speed selection •On-screen programmable menu functions •Full function control from the rear panel or the optional RM-C950 Remote Control Unit •Precise picture controls including Linear Matrix, Vertical Shading Compensation, Advanced Detail, Knee, Master Pedestal, and Negative/Positive mode •Flash synchronization function •Various electronic shutter functions including Clear Scan™, Long Term Exposure, RR (Restart Reset), and LTR (Long Term Reset)

Supplied Accessories: Lens mount cap (1)
Name sheet for the buttons on the RM-C950 (1)
Operating Instructions (1)

Optional Accessories: Camera Adaptor CMA-H10
Remote Control Unit RM-C950
Digital Scan Converter DSC-1024
Camera Cable CCZ-A2/A5/A10/A25/A50/A100
Microscope adaptors and couplers MVA-690/20/33, MVAC-33-0/N/SM
Monitor cable CCXC-9DBS, D-SUB 9-pin ↔ 5 BNC

## Specifications

**Image system/optical system**

Image device: Three 2/3-inch Interline Transfer Hyper HAD CCDs
Picture elements: 1920 (horizontal) × 1035 (vertical)
Shooting system: CCD 3-chip
Lens: Prism type, F1.4
Lens mount: 2/3 inch bayonet type

**Video system**

Synchronization: Internal/external synchronization, automatic switching
Signal format: HD format (conforms to BTA standard)
Output frequency (horizontal/vertical): 33.75 kHz/60 Hz or 33.71 kHz/59.94 Hz (60 Hz or 59.94 Hz switchable)

**Functions/performance**

Horizontal resolution: 1000TV lines
Min. illumination: 16 lx (F1.4, G or Y: 100%, gain: + 12 dB)
Sensitivity: 2000 lux (F8, 3,200K) system
Signal-to-noise ratio: 50 dB (Y, Gain: 0 dB, Gamma: OFF, 100 kHz to 30 MHz)
Gain control: Fixed: 0/6/12 dB selectable
AGC: Automatically adjusted within range of 0 dB to 12 dB
White balance: AWB: automatic adjustment (2,500 K to 9,000K) (R. PAINT and B. PAINT adjustable)
ATW: Automatic tracing (R. PAINT and B. PAINT adjustable)
MANU: Manual adjustment (R. GAIN and B. GAIN adjustable)
Color temperature: 3200K/5600K switchable
Electronic Shutter: CCD IRIS: Automatic exposure control (within range of 1/60-1/100000 seconds)
STEP: 1/100 (flickerless mode), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000, 1/20000, 1/40000, 1/100000 s
MANU: 2 to 256 frames (low speed mode frame), 1 to 560H (high speed mode)
External Trigger Shutter: RR (Restart Reset)
EXT. TRIG
LTR (Long-term reset)
AE mode: MULTI, AVERAGE, SPOT, PEAK
Knee: HI, LOW, AUTO
Master Pedestal: Adjusts pedestal levels of G, B, and R channels simultaneously
Linear Matrix: ON/OFF switchable
Vertical Shading compensation: OFF/MANUAL switchable
Gamma compensation: ON/OFF switchable
Negative/Positive mode: ON/OFF switchable
Accumulation mode: Field/frame switchable
Detail compensation: ON/OFF switchable
Flash synchronization: ON/OFF switchable
Video signal output mode: GBR/$YP_BP_R$ switchable
Sync signal format: Tri-level sync signal/Bi-level switchable
Sync signal input/output mode: Input/output switchable (HD/VD and SYNC signals switched simultaneously)
Horizontal phase: Adjustable

**Inputs/outputs**

Video input/output signals:
Y/R/G/B output: 1 Vp-p (75 ohms)
$P_B/P_R$ output: 0.7 Vp-p (75 ohms)
HD/VD input/output: 1 Vp-p (75 ohms)
SYNC input/output: 0.6 Vp-p (tri-level, 75 ohms), 0.3 Vp-p (bi-level)
WEN pulse: TTL level, negative
External sync input: SYNC or HD/VD switched automatically
External trigger input: TTL level, negative
Pulse width: more than 3H
Input/output connectors: MONITOR: D-sub 9-pin
CAMERA ADAPTOR: 26-pin
LENS IRIS: 12-pin
LENS CTRL: 12-pin
FLASH: small coaxial type

**General**

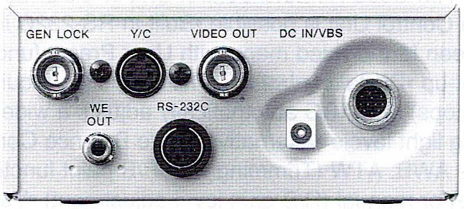
Power supply: 15 V DC (10.5 to 15 V)
Power consumption: Approx. 25 W
Operating temp: -5 to 45°C (23 to 113°F)
Storage temp: -20 to 60°C (-4 to 140°F)
Operating humidity: 20% to 80% (free of condensation)
Storage humidity: 20% to 95% (free of condensation)
Dimensions: 95 (W) × 95 (H) × 160 (D) mm ($3\frac{3}{4} \times 3\frac{3}{4} \times 6\frac{3}{8}$ inch)
Mass: 1.2 kg (2 lb 10 oz)

## DXC-LS1P

### CCD Colour Video Camera

•Extremely small and compact camera composed of a camera head and a camera control unit •1/4-inch Hyper HAD CCD adoption •High picture quality with 460TV lines, a high sensitivity of F5.6 at 2000 lx and an excellent signal-to-noise ratio •Advanced color matrix function allows you to adjust R, G and B colours independently for accurate colour reproduction •Easy call-up function of favorite settings (2 patterns) •Exchangeable camera head •AE control function (A CCD IRIS function combined AGC) provides automatic control over incoming light •Automatic backlight adjustment •Built-in electronic zoom function (x1.00 to x3.00) •Four-pattern Light Metering System with selectable detection method •Alternative White Balance Control modes - AWB, ATW, 5600K or 3200K (Trimming with R/B paint function is possible with AWB, 5600K and 3200K) •Shutter speed control capability for long term exposure •With variable gamma function, the contrast of the picture can be changed for a clear view •Enhancer function provides crisper, sharper images •Three different sizes of color bars •Flicker canceller is provided, freeing the electronic shutter •Positive films can be shot as negative, or vice versa •B&W mode for sharp images free from colour noise •Built-in RS-232C interface •Genlock capability with VBS •Y/C or VBS output •Optional CMA-D2CE or AC-E90HG can be used for power supply

SONY
POWER
MENU
AUTO WHITE
DISP
CAMERA
CAMERA CONTROL UNIT

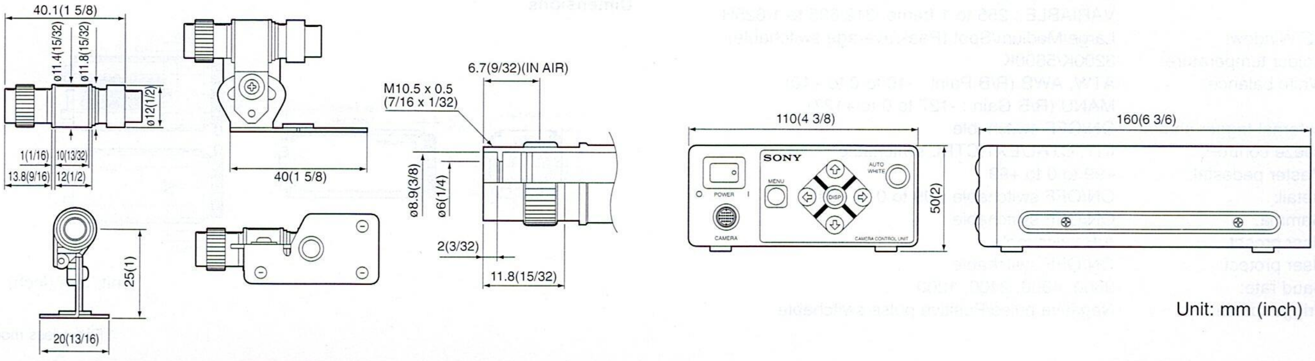


| | |
|---|---|
| Supplied Accessories: | Camera cable (3m)<br>Tripod adaptor (1)<br>Lens mount cap (1)<br>Operation manual (1) |

### Specifications

| | |
|---|---|
| Image device: | 1/4-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752(H) × 582(V) |
| Sensing area: | 3.2 × 2.4 mm (1/4-inch) |
| Scanning system: | 625 lines, 2 : 1 interlace |
| Sync system: | Internal or external with VBS |
| Phase control: | H (0 to +255) / SC (0/180, 0 to +255) |
| Horizontal resolution: | 460TV lines |
| Lens mount: | Ultra mount |
| Sensitivity: | 2000 lx with F5.6 |
| Minimum illumination: | 10 lx (F1.2) |
| Gain control: | AGC / 0 to -12dB (1dB steps) switchable |
| Electronic shutter: | OFF/MANUAL/AUTO<br>MANUAL: 1/50, 1/100, 1/125, 1/250, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000, 1/20000, 1/40000 (seconds)<br>2 to 512 fields, ODD/EVEN switchable |
| Signal-to-noise ratio: | 44dB |
| White balance: | ATW/AWB/5600K/3200K selectable<br>(R/B paint: –128 to 0 to +128) |
| AE mode: | ON/OFF switchable |
| AE level: | –60 to 0 to +60 |
| Light metering system: | Backlight compensation/Full/Centre (Large)/Centre (Small)/Slit (Large)/Slit (Small) |
| Detection method: | Peak/average switchable |
| Master pedestal: | –10 to 0 to +40 |
| H Enhancer: | –16 to 0 to +15 |
| Zoom: | ON (×1.00 to ×3.00)/OFF switchable |
| Colour matrix: | ON/OFF switchalbe<br>R : –60 to 0 to +60<br>G : –60 to 0 to +60<br>B : –60 to 0 to +60 |
| Gamma: | –16 to 0 to +15 |
| Colour mode: | ON/OFF switchable |
| Colour bars: | FULL/HI/LOW/OFF switchable |
| Negative/Positive reverse: | ON/OFF switchable |
| Menu memory: | 2 pages |
| Flicker canceller: | AUTO/OFF switchable |
| Baud rate: | 19200, 9600, 4800 |
| Video out: | VBS: 1.0Vp-p, 75Ω, sync negative<br>Y/C: Y : 1.0Vp-p, 75Ω, sync negative<br>C : 0.3Vp-p, at burst level, 75Ω |
| Operating temperature: | 0˚C to 40˚C (32˚F to 104˚F) |
| Storage temperature: | –20˚C to 60˚C (-4˚F to 140˚F) |
| Power requirements: | DC 12V (Supplied from CMA-D2CE)<br>DC 9V (Supplied from AC-E90HG) |
| Power consumption: | 5W |
| Maximum cable length: | 10m using 10m optional cable (CCMC-16P10) |
| Mass: | Camera head (without lens and supplied cable) : 8g (0.3 oz)<br>Camera control unit : Approx. 665g (1 lb 7 oz) |
| Connectors: | Camera head : CAMERA (16-pin)<br>Camera control unit : CAMERA (20-pin), VIDEO OUT (BNC), DC IN/VBS (12-pin, DC jack), Y/C (DIN 4-pin), GENLOCK (BNC), RS-232C (8-pin), WE OUT (PIN) |

**Dimensions**



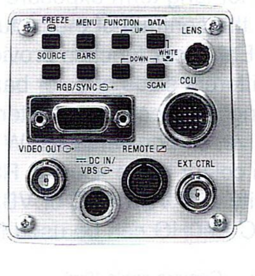
Unit: mm (inch)

## DXC-9100P

### 3-CCD Colour Video Camera

•Progressive scan 3-CCD camera featuring full-frame dynamic image capturing •Square picture pixels adoption (8.3µm x 8.3µm) for more accurate measurements •Three alternative signal output capability - Normal mode and Frame shutter mode (2:1 interlace) and Non-interlaced mode • High picture quality with 800TV lines, a high sensitivity of F5.6 at 2000lx and an excellent S/N raito of 57dB •By utilizing the built-in frame memory, freeze function (continuous freeze mode or source/freeze mode is selectable) and long term exposure function can be controlled without external equipment •Three-pattern Light Metering System with selectable detection method •Remote control from the optional RM-C950 Remote Control Unit or CCU-M5P Camera Control Unit is possible •Built-in RS-232C interface •On-screen four divided menu with User Preset function for easy set-up •Digital control CCD IRIS function (equivalent to four F-stops) and AGC automatically adjusts a wider range of incoming light levels •Alternative White Balance Control modes - AWB, ATW (Trimming with R/B paint function is possible) or manual (R/B gain level adjustment) •Variable speed electronic shutter such as External Trigger Shutter, Clear Scan function in addition to the conventional eight-step selection •RGB output via a 9-pin D-sub connector •Y/C or VBS output can be selected from the 9-pin D-sub connector •Composite signal output via a BNC connector •Genlock capability with VBS or BS signals •Accepts bayonet-mount lenses with a hot-shoe connection •Optional CMA-D2CE can be used for power supply

SONY
Progressive 3CCD

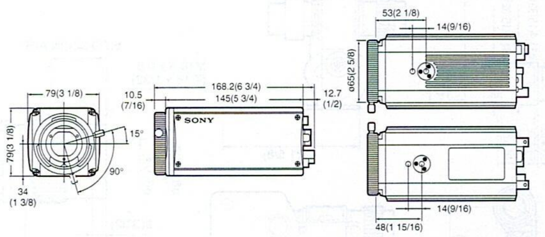


| | |
|---|---|
| Supplied Accessories: | Lens mount cap (1)<br>Operation manual (1)<br>Buttons label for the optional RM-C950 Remote Control Unit |

## Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD (x3) |
| Picture elements: | 782(H) × 582(V) |
| Sensing area: | 6.4 × 4.8 mm |
| Scanning system: | PAL standard format : 625 lines, 2:1 interlace<br>Non-interlaced format : 1/50, Non-interlaced |
| Horizontal frequency: | PAL standard format : 15.625kHz<br>Non-interlaced format : 31.25kHz |
| Vertical frequency: | PAL standard format : 50Hz<br>Non-interlaced format : 50Hz |
| Sync system: | Internal or external with VBS, BS, VS, SYNC or HD/VD |
| Phase control: | H (-99 to 0 to +99) / SC (0/180, -99 to 0 to +99) |
| Green-on-sync: | ON/OFF switchable |
| Horizontal resolution: | 800TV lines |
| Vertical resolution: | 575TV lines |
| Lens mount: | 38 mm bayonet mount |
| Sensitivity: | 2000 lx with F5.6 (3200K) |
| Minimum illumination: | 15 lx (F1.4, +18dB) |
| Signal-to-noise ratio: | 57dB |
| Gain control: | AGC / 0 to 18dB (1dB steps) switchable |
| Electronic shutter: | OFF/STEP/VARIABLE/CCD IRIS selectable<br>STEP : 1/50, 1/120*, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)<br>0.1, 0.2, 0.3, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 6.0, 7.0, 8.0 (seconds)<br>VARIABLE : 255 to 1 frame, 312/625 to 1/625H |
| AE Window: | Large/Medium/Spot (Peak/average switchable) |
| Colour temperature: | 3200K/5600K |
| White balance: | ATW, AWB (R/B Paint : -10 to 0 to +10)<br>MANU (R/B Gain : -127 to 0 to +127) |
| External trigger shutter: | ON/OFF switchable |
| Feeze control: | INT. CTRL/EXT.CTRL switchable |
| Master pedestal: | –99 to 0 to +99 |
| Detail: | ON/OFF switchable (-99 to 0 to +99) |
| Gamma: | ON/OFF switchable |
| User preset: | A/B switchable |
| User protect: | ON/OFF switchable |
| Baud rate: | 9600, 4800, 2400, 1200 |
| Trigger pulse: | Negative pulse/Positive pulse switchable |
| Video out: | VBS: 1.0Vp-p, 75Ω, sync negative<br>RGB : 0.7Vp-p, 75Ω<br>Y/C : Y : 1.0Vp-p, 75Ω, sync negative<br>C : 0.3Vp-p, at burst level, 75Ω<br>VGA : RGB : 0.7Vp-p<br>SYNC/HD/VD : 2.0Vp-p, 75Ω<br>WEN : 5.0Vp-p, high impedance |
| External sync input: | VBS/BS/VS/SYNC/HD/VD<br>(VBS : 1.0Vp-p or burst 0.3Vp-p, SYNC : 0.3Vp-p, HD/VD : 2.0 to 4.0Vp-p), 75Ω |
| External trigger input: | Trigger pulse, low level : 0 to 0.5V,<br>high level : 4.5 to 5.0V, high impedance |
| Operating temperature: | –5°C to 45°C (23°F to 113°F) |
| Storage temperature: | –20°C to 60°C (-4°F to 140°F) |
| Power requirements: | DV 12V (Supplied from CMA-D2CE or CCU-M5P) |
| Power consumption: | Approx. 12W |
| Mass: | Approx. 790g (1 lb 11 oz) |
| Connectors: | LENS (6-pin), RGB/SYNC (D-sub 9-pin), DC IN/VBS (12-pin), VIDEO OUT (BNC), CCU (20-pin), REMOTE (8-pin), EXT CTRL (BNC), HOT SHOE (14-pin) |

### Dimensions



Unit: mm (inch)

* Flickerless mode

## DXC-950P

### 3-chip CCD colour video camera

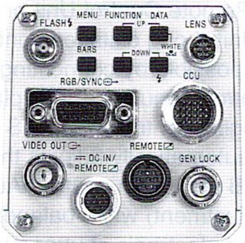
•Multi-purpose 3-CCD compact camera for versatile industrial video applications •Newly developed 1/2-inch IT Power HAD sensor CCDs •High horizontal resolution of 750TV lines •Extremely high sensitivity of F8.5 at 2000 lx •Excellent signal-to-noise ratio of 58dB •Excellent colour reproduction •Convenient operational functions including Flash Synchronization and Three-pattern Light Metering System •Various precise picture controls •Field or frame integration mode selectable •Remote control from the optional RM-C950/RM-930 Remote Control Unit or CCU-M5P Camera Control Unit •Built-in RS-232C serial interface •On-screen four divided menu with Memory Bank function for easy set-up •Digital control CCD IRIS function (equivalent to six F-stops) and AGC automatically adjusts a wide range of incoming light level •Alternative White Balance Control Modes - AWB, ATW (Trimming with R/B Paint function is possible) or manual (R/B gain level adjustment) •Minutely controlled electronic shutter speed - Manual speed selection (1H for Clear Scan or 1 frame step for long term exposure) in addition to the conventional 8-step speed selection

| | |
|---|---|
| Supplied accessories: | Lens mount cap<br>Operation manual |
| Optional accessories: | Camera adaptor CMA-D2CE<br>Remote control unit RM-C950<br>Remote control unit RM-930<br>Camera control unit CCU-M5P<br>Digital Still Recorder DKR-700P<br>DC cable CCDC-5/10/25/50A/100A<br>12-pin multi-core cable CCMC-12P02/05/10/25<br>Component/RGB cable CCXC-9DD<br>Component/RGB cable CCXC-9DB<br>Component/RGB cable CCMC-9DS<br>Component/RGB cable CCMC-9DSMN<br>Camera cable CCTQ-3RGB<br>Camera cable CCTZ-3RGB<br>Camera cable CCTZ-3YC<br>Camera cable CCMC-1210P3<br>Microscope adaptor with auto iris MVA-40<br>Microscope adaptor MVA-41A<br>Microscope adaptor (one way) MVA-265<br>Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N<br>Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM<br>Coupler for OLYMPUS microscopes MVAC-33-O<br>Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB<br>Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV<br>2/3-inch Lens Mount Adaptor LO-32BMT<br>Manual zoom lens VCL-707BXM<br>Remote zoom lens VCL-712BXEA<br>Remote zoom lens VCL-714BXEA<br>Remote zoom lens VCL-716BXEA |

## Specifications

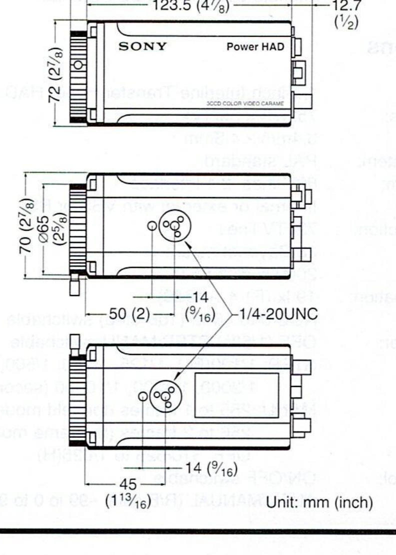
| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Power HAD CCD (×3) |
| Picture elements: | 752(H) × 582(V) |
| Sensing area: | 6.4mm × 4.8mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with VBS or BS |
| Horizontal resolution: | 750TV lines |
| Lens mount: | 38 Bayonet mount |
| Sensitivity: | 2000 lx with F8.5 |
| Minimum illumination: | 6.5 lx (F1.4) |
| Gain control: | AGC/0 to 18dB (1dB step)/ISO (400, 800, 1600) switchable |
| Electronic shutter: | OFF (1/50s)/STEP/Long Exp./C. Scan switchable<br>STEP: 1/120(FL), 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)<br>Long Exp.: 255 to 1 frames (for field mode), 256 to 2 frames (for frame mode), OFF<br>C. Scan: 310/625 to 1/625(H), OFF |
| CCD IRIS control: | ON/OFF switchable |
| White balance: | ATW, AWB (R/B Paint: -7 to 0 to +7)<br>MANU (R/B Gain: –99 to 0 to +99) |
| Signal-to-noise ratio: | 58dB |

Lens is optional



| | |
|---|---|
| Linear matrix: | ON/OFF switchable |
| Shading compensation: | OFF/1 to 9 |
| Master pedestal: | –99 to 0 to +99 |
| Detail: | –99 to 0 to +99 |
| Phase control: | H/SC phase control<br>H. phase: –99 to 0 to +99<br>SC phase: 0/180<br>Fine: –99 to 0 to +99 |
| Gamma: | ON/OFF switchable |
| Knee: | 1/2 switchable |
| Green-on-sync: | ON/OFF switchable |
| Memory bank: | A/B switchable |
| Memory protect: | ON/OFF switchable |
| Data send: | A>B, B>A switchable |
| Baud rate: | 9600, 4800, 2400, 1200 |
| Flash mode: | OFF/master/slave switchable |
| Printer trigger: | ON/OFF switchable |
| Video out: | VBS: 1.0Vp-p, 75Ω, sync negative<br>RGB: 0.7Vp-p, 75Ω<br>Y/C: Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, 75Ω, without sync<br>Y/R-Y/B-Y: Y: 1.0Vp-p, 75Ω<br>R-Y: 0.525Vp-p, 75Ω<br>B-Y: 0.525Vp-p, 75Ω |
| Operating temperature: | –5 to 45°C (23 to 113°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Power requirements: | DC 12V<br>(supplied from CMA-D2CE or CCU-M5P) |
| Power consumption: | 7.8W |
| Mass: | Approx. 670g (1 lb 8 oz) |
| Connectors: | LENS (6-pin), RGB/SYNC (D-sub 9-pin), GENLOCK IN (BNC), DC IN/REMOTE (12-pin), VIDEO OUT (BNC), CCU (20-pin), FLASH (Synchronous socket), REMOTE (8-pin) |

**Dimensions**



## DXC-930P

### 3-chip CCD colour video camera

•Multi-purpose 3-CCD compact camera for various industrial video applications

•High density three 1/2-inch IT Hyper HAD sensor CCDs offer superior picture quality:

— High horizontal resolution of 720TV lines

— High sensitivity of F5.0 at 2000 lx

— Excellent signal-to-noise ratio of 56dB

— Excellent colour reproduction

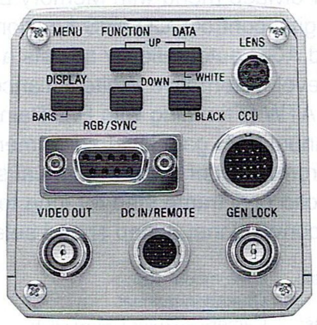
•Various built-in camera function controls •Field or frame integration mode selectable •Remote control from the optional RM-930 Remote Control Unit or CCU-M5P/M7P Camera Control Unit •Long distance control of lens zoom/ focus functions is possible by connecting CCU-M5P/ M7P with RM-930 •Control menu can be displayed in characters on the monitor •Digital control CCD IRIS function (equivalent to three F-stops) automatically adjusts the incoming light levels •AGC or 1dB step Gain control •Automatic or manual (R/B gain level adjustment) white balance control mode

•Minutely controlled electronic shutter speed—Manual speed selection (1H or 1 frame step) in addition to the conventional 8-step speed selection

| | |
|---|---|
| Supplied accessories: | Lens mount cap<br>Operation manual |
| Optional accessories: | Camera adaptor CMA-D2CE<br>Remote control unit RM-930<br>Camera control unit CCU-M5P<br>Camera control unit CCU-M7P<br>Digital Still Recorder DKR-700P<br>DC cable CCDC-5/10/25/50A/100A<br>12-pin multi-core cable CCMC-12P02/05/10/25<br>Camera cable CCMC-1210P3<br>RGB cable CCXC-9DD<br>RGB cable CCXC-9DB<br>RGB cable CCMC-9DS<br>RGB CCMC-9DSMN<br>Camera cable CCTQ-3RGB<br>Camera cable CCTZ-3RGB<br>Camera cable CCTZ-3YC<br>Microscope adaptor with auto iris MVA-40<br>Microscope adaptor MVA-41A<br>Microscope adaptor (one way) MVA-265<br>Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N<br>Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM<br>Coupler for OLYMPUS microscopes MVAC-33-O<br>Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB<br>Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV<br>2/3-inch Lens Mount Adaptor LO-32BMT<br>Manual zoom lens VCL-707BXM<br>Remote zoom lens VCL-712BXEA<br>Remote zoom lens VCL-714BXEA<br>Remote zoom lens VCL-716BXEA |

SONY
3CCD
COLOR VIDEO CAMERA / CCD-IRIS
NEAR
TELE
CLOSE

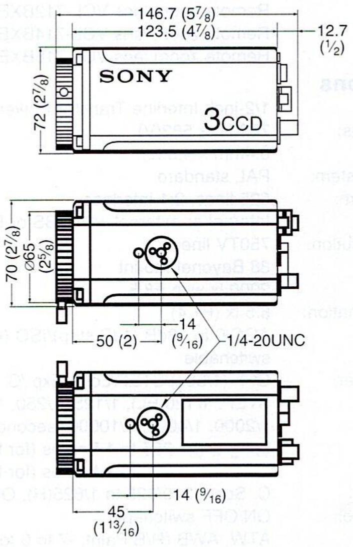
Lens is optional



### Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD (×3) |
| Picture elements: | 752(H) × 582(V) |
| Sensing area: | 6.4mm × 4.8mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with VBS or BS |
| Horizontal resolution: | 720TV lines |
| Lens mount: | 38 Bayonet mount |
| Sensitivity: | 2000 lx with F5.0 |
| Minimum illumination: | 19 lx (F1.4, +18dB) |
| Gain control: | AGC/0 to 18dB (1dB step) switchable |
| Electronic shutter: | OFF (1/50s)/STEP/MANU switchable<br>STEP: 1/120(FL), 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)<br>MANU: 255 to 1 frames (for field mode), 256 to 2 frames (for frame mode), OFF, 310/625 to 1/625(H) |
| CCD IRIS control: | ON/OFF switchable |
| White balance: | AUTO/MANUAL (R/B gain: –99 to 0 to 99) selectable |
| Signal-to-noise ratio: | 56dB (Gamma:OFF, DTL:OFF) |
| Master pedestal: | –99 to 0 to +99 |
| Detail: | –99 to 0 to +99 |
| Phase control: | H/SC phase control<br>H. phase: –99 to 0 to +99<br>SC phase: 0/180<br>Fine: –99 to 0 to +99 |
| Gamma: | ON/OFF switchable |
| Green-on-sync | ON/OFF switchable |
| Video out: | VBS: 1.0Vp-p, 75Ω, sync negative<br>RGB: 0.7Vp-p, 75Ω<br>Y/C: Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, 75Ω, without sync |
| Operating temperature: | –5 to 45°C (23 to 113°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Power requirements: | DC 12V<br>(supplied from CMA-D2CE or CCU-M5P/M7P) |
| Power consumption: | 7.8W |
| Mass: | Approx. 670g (1 lb 8 oz) |
| Connectors: | LENS (6-pin), RGB/SYNC (D-sub 9-pin), GENLOCK IN (BNC), DC IN/REMOTE (12-pin), VIDEO OUT (BNC), CCU (20-pin) |

**Dimensions**



Unit: mm (inch)

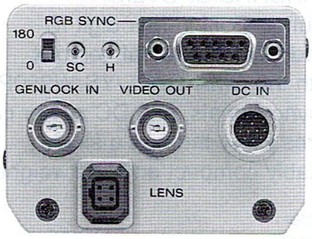
## DXC-151AP

### CCD colour video camera

•RGB camera for image processing •High resolution 2/3-inch IT Hyper HAD CCD, together with a primary colour G stripe R/B sequential filter, offers 460TV lines (VBS or Y/C output) or 440TV lines (RGB output) of horizontal resolution and superior colour reproduction •Signal-to-noise ratio of 46dB •RGB output via a 9-pin D-sub connector •S-video (Y/C) output is available through the CMA-D2CE camera Adaptor (connected to the camera via 12-pin multi-connector or 9-pin D-sub connector) •Composite signal output via a BNC, 9-pin D-sub or 12-pin connector •3-position selectable CCD IRIS covers various light conditions—BACKLIGHT/ STANDARD/SPOTLIGHT •Genlock capability with VBS or BS signals •Four alternative white balance control: Automatic control modes—AWB (Autio White Balance)/ ATW (Auto Tracing White), Preset modes—INDOOR (3200K)/OUTDOOR (5600K) •Variable speed electronic shutter •C-mount adoption •Remarkably compact and lightweight

Hyper HAD
SONY
CCD-IRIS/RGB
COLOR VIDEO CAMERA

Lens is optional

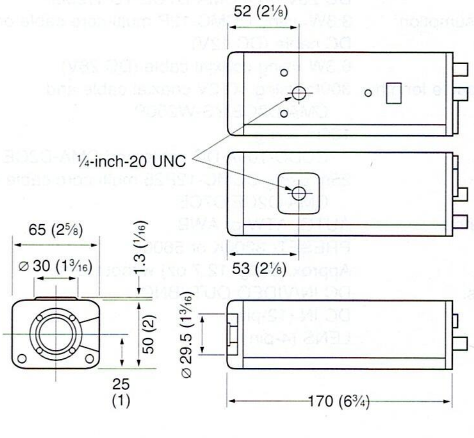


| | |
|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>Operating instruction manual |
| Optional accessories: | Camera adaptor CMA-D2CE<br>DC cable CCDC-5/10/25/50A/100A (5/10/25/50/100m)<br>12-pin Multi cable CCMC-12P02/05/10/25 (2/5/10/25m)<br>RGB cable CCXC-9DD (9-pin D-sub ↔ 9-pin D-sub)<br>RGB cable CCXC-9DB (9-pin D-sub ↔ 5BNC's)<br>RGB cable CCMC-9DS (9-pin D-sub ↔ 4BNC's, DIN 4-pin)<br>Microscope adaptor MVA-12<br>Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N<br>Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM<br>Coupler for OLYMPUS microscopes MVAC-33-O<br>Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB<br>Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV<br>Manual zoom lens VCL-1106YM (11.5 to 69mm, F1.4) |

## Specifications

| | |
|---|---|
| Image device: | 2/3-inch InterlineTransfer Hyper HAD CCD<br>Primary colour G stripe R/B sequential filter |
| Picture elements: | 756 (H) × 581 (V) |
| Sensing area: | 8.8mm × 6.6mm |
| Video signal system: | PAL standard |
| Sync system: | Internal or external with VBS or BS |
| Horizontal resolution: | 460TV lines (VBS or Y/C output)<br>440TV lines (RGB output) |
| Lens mount: | C mount (Back focus adjustable) |
| Sensitivity: | F5.6 at 2,000 lx |
| Minimum illumination: | 13 lx with F1.4 (+12dB) |
| Gain control: | 0, +6, +12dB, AGC selectable |
| Electronic shutter: | OFF, 1/120(FL), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| S/N ratio: | 46dB |
| Phase control: | H/SC phase control |
| CCD IRIS control: | BACKLIGHT/STANDARD/SPOTLIGHT switchable |
| Video out: | VBS: 1.0Vp-p, 75Ω, Sync negative<br>RGB: 0.7Vp-p, 75Ω<br>Y/C: Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Power requirements: | DC 12V supplied from CMA-D2CE |
| Power consumption: | 7W |
| Maximum cable length: | 100m using CCDC-100A DC cable and CMA-D2CE<br>25m using CCMC-12P25 multi-core cable and CMA-D2CE |
| White balance: | AUTO: ATW or AWB<br>PRESET: 3200K or 5600K |
| Mass: | Approx. 520g (1 lb 2 oz) without lens |
| Connectors: | VIDEO OUT (BNC)<br>GENLOCK IN (BNC)<br>DC IN (12-pin)<br>LENS (4-pin)<br>RGB, VBS or Y/C out (9-pin D-sub) |

**Dimensions**



# DXC-107AP

## CCD colour video camera

•High resolution 1/2-inch IT Hyper HAD sensor CCD offers high quality picture •High sensitivity in minimum illumination of only 4.5 lx with F1.2 lens •Signal-to-noise ratio of 46dB •High horizontal resolution of 460TV lines •S-video output is available through the CMA-D2CE Camera Adaptor •Four alternative white balance control: Automatic control modes—AWB (Auto White Balance)/ATW (Auto Tracing White), Preset modes—INDOOR (3200K)/OUTDOOR (5600K) •3-position selectable CCD-IRIS covers various light conditions—BACKLIGHT/STANDARD/SPOTLIGHT •Variable speed electronic shutter •Built-in four digit ID number generator •C-mount adoption •External genlock capability of VS •Together with the CMA-D7CE/YS-W250P Camera Adaptor, video and sync signals, and DC power can be transmitted up to 300 metres away through a single 5C-2V coaxial cable •Remarkably compact and lightweight

SONY
CCD-IRIS
COLOR VIDEO CAMERA

Lens is optional

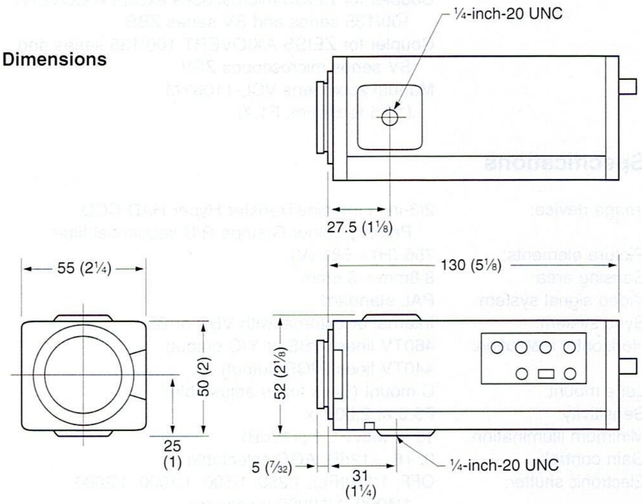
VIDEO OUT
H PHASE
LENS

| | |
|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>Operating instruction manual |
| Optional accessories: | Camera adaptor CMA-D7CE<br>Camera adaptor CMA-D2CE<br>Camera adaptor YS-W250P<br>DC cable CCDC-5/10/25/50A/100A<br>12-pin multi-core cable CCMC-12P02/05/10/25<br>Microscope adaptor MVA-12<br>Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N<br>Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM<br>Coupler for OLYMPUS microscopes MVAC-33-O<br>Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB<br>Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV |

### Specifications

| | |
|---|---|
| Image device: | 1/2-inch InterlineTransfer Hyper HAD CCD |
| Picture elements: | 752 × 582 (V) |
| Sensing area: | 6.4mm × 4.8mm |
| Video signal system: | PAL standard |
| Sync system: | Internal or external with VS |
| Horizontal resolution: | 460TV lines |
| Lens mount: | C mount |
| Sensitivity: | F5.6 at 2,000 lx (AGC off) |
| Minimum illumination: | 4.5 lx with F1.2 (AGC on) |
| Gain control: | AGC ON/OFF switchable |
| Electronic shutter: | OFF, 1/120(FL), 1/250, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| S/N ratio: | 46dB |
| CCD IRIS control: | BACKLIGHT/STANDARD/SPOTLIGHT switchable |
| Phase control: | H phase control |
| Video out:: | VBS: 1.0Vp-p, 75Ω, sync negative<br>Y/C: Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, 75Ω, without sync |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Power requirements: | DC 12V from CMA-D2CE/D7CE<br>DC 28V from CMA-D7CE/YS-W250P |
| Power consumption: | 3.3W using CCMC-12P multi-core cable or CCDC DC cable (DC 12V)<br>6.3W using coaxial cable (DC 28V) |
| Maximum cable length: | 300m using 5C-2V coaxial cable and CMA-D7CE/YS-W250P<br>100m using CCDC-100A DC cable and CMA-D2CE<br>25m using CCMC-12P25 multi-core cable and CMA-D2CE/D7CE |
| White balance: | AUTO: ATW or AWB<br>PRESET: 3200K or 5600K |
| Mass: | Approx. 360g (12.7 oz) without lens |
| Connectors: | DC IN/VIDEO OUT (BNC)<br>DC IN (12-pin)<br>LENS (4-pin) |

**Dimensions**



Unit: mm (inch)

# 4. Sensor camera accessories

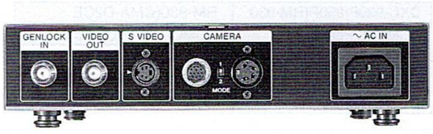
## CMA-D2CE

### Camera adaptor for DXC-9100/950P/930P/151AP/107AP/LS1P

- Supplies DC power with a CCDC cable to cameras
- Transmits DC power and video/sync signals between the camera and the adaptor with a CCMC cable
- Maximum cable length:
  100m with CCDC-100A cable
  25m with CCMC-12P25 cable
- 19-inch EIA standard rack mountable

Connectors: CAMERA (12-pin MULTI)
CAMERA (4-pin DIN)
VIDEO OUT (BNC)
S VIDEO OUT (Mini DIN 4-pin)
GEN-LOCK IN (BNC)
DC out: 13V, 1.3A
Power requirements: AC 100 to 240V, 50/60Hz
Power consumption: 24.5W
Dimensions: 210(W) × 50(H) × 200(D)mm ($8^{3}/_{8}$ × 2 × $7^{7}/_{8}$ inches)
Mass: 1.1kg (2 lb 7 oz)
Supplied accessories:
AC power cord
Operation manual

SONY
POWER
CAMERA ADAPTOR CMA-D2



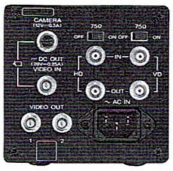
## CMA-D7CE

### Camera adaptor for DXC-107AP

- Power supply and video/sync signal transmission by connecting to DXC-107AP with a single coaxial cable
- Maximum cable length:
  300m with 5C-2V cable
  25m with CCMC-12P25 cable

Connectors: CAMERA (12-pin)
DC OUT/VIDEO IN (BNC)
VIDEO OUT (BNC × 2)
HD IN/OUT (BNC, loop-through, 75Ω ON/OFF)
VD (GENLOCK) IN/OUT (BNC, loop-through, 75Ω ON/OFF)
DC out: 28V, Max. 0.25A (BNC)/
12V, Max. 0.3A (12-pin)
Power requirements: AC 220 to 240V, 50/60Hz
Power consumption: 35W
Dimensions: 105(W) × 104.5(H) × 254.7(D)mm ($4^{1}/_{4}$ × $4^{1}/_{4}$ × $10^{1}/_{8}$ inches)
Mass: 2.7 kg (5 lb 15 oz)
Supplied accessories:
AC power cord
Operation manual

SONY
CAMERA ADAPTOR
POWER
CABLE COMP

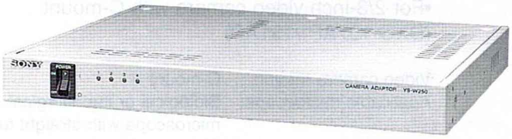


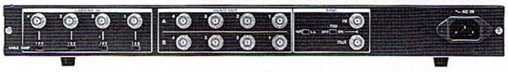
## YS-W250P

### AC adaptor for DXC-107AP

- Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable
- Up to four cameras can be connected
- Internal or external synchronization with VS or AC line lock
- Extends the cable lengh up to 300m with 5C-2V coaxial cable

Connectors: CAMERA IN 1 to 4 (BNC × 4)
VIDEO OUT A 1 to 4 (BNC × 4)
VIDEO OUT B 1 to 4 (BNC × 4)
SYNC IN/OUT (BNC, loop-through, 75Ω ON/OFF switch)
Power requirements: AC 220 to 240V, 50Hz
Power consumption: 48W
Dimensions: 424 (W) × 52(H) × 330(D)mm ($16^{3}/_{4}$ × $2^{1}/_{8}$ × 13 inches)
Mass: 3.6kg (7 lb 15 oz)





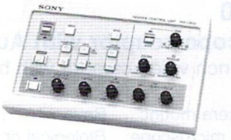
## RM-C950

### Remote control unit

- Full remote control of the DXC-9100P/950P camera functions and lens zoom/focus/iris functions via RS-232C
- Facilitated operation with knob control of gain, detail, master pedestal, red and blue gain functions
- A printer button is provided
- Power is supplied through the DXC-9100P/950P connected to the CMA-D2CE Camera Adaptor or CCU-M5P Remote Control Unit

Power requirements: DC 12V (supplied from DXC-9100P/950P connected to CMA-D2CE or CCU-M5P)
Operating temperature: –5 to 45°C (23 to 113°F)
Connectors: CAMERA (8-pin)

Control:
IRIS (AUTO/MANUAL)
ZOOM
FOCUS
COLOUR BAR
MENU DISPLAY
GAIN (STEP/AGC/ISO)
SHUTTER SPEED (OFF/STEP/LONG/EXP/C.SCAN/CCD IRIS)
AE WINDOW (LARGE/MEDIUM/SPOT)
FIELD/FRAME (CCD INTEGRATION MODE)
COLOUR TEMPERATURE (3200K/5600K)
WHITE BALANCE (AUTO/MANUAL/ATW)
LINEAR MATRIX
SHADING COMPENSATION
MASTER PEDESTAL
DETAIL
H. PHASE
SC PHASE
FINE
GAMMA
KNEE
G. SYNC
MEMORY BANK
MEMORY PROTECT
DATA SEND
D-SUB OUTPUT (VBS/Y/C, RGB/COMPONENT)
BAUD RATE
FLASH
PRINTER TRIGGER



Mass: Approx. 400g (14 oz)
Dimensions: 212(W) × 41(H) × 132(D)mm ($8^{3}/_{8}$ × $2^{5}/_{8}$ × $5^{1}/_{4}$ inches)
Supplied accessories:
Connection cable (3m)
Operation manual

## RM-930
### Remote control unit

- Full remote control of the DXC-930P/950P camera functions and lens zoom/focus/iris functions
- Long distance control (up to 300m) of zoom and focus function of lens by connecting CCU-M5P with CCMC-1210P3
- DC operation capability with the optional CMA-D2CE Camera Adaptor
- Usable cables

| DXC-930P/950P(RM-930 | RM-930(CMA-D2CE |
|---|---|
| CCMC-12Pcable | CCMC-12P or CCDC cable |
| CCMC-12P02/05/10/25 | CCDC-5/10/25/50A |
| CCMC-12P02/05/10 | CCMC-12P02/05/10/25 |
| CCMC-12P25 | CCMC-12P02/05/10 |

Power requirements:
DC 12V (supplied from CMA-D2CE)
Operating temperature:
–5 to 45°C (23 to 113°F)

Connectors: CAMERA (12-pin)
MONITOR OUT (BNC)
DC IN (12-pin)
Control: IRIS (AUTO/MANUAL)
ZOOM
FOCUS
COLOUR BAR
MENU DISPLAY
GAIN (STEP/AGC/ISO[*1])
SHUTTER SPEED
(OFF/STEP/LONG EXP./
C. SCAN/CCD IRIS)
AE WINDOW (LARGE/MEDIUM/SPOT)[*1]
FIELD/FRAME (CCD INTEGRATION MODE)
COLOUR TEMPERATURE (3200K/5600K)
WHITE BALANCE (AUTO/MANUAL/ATW[*1])
AUTO BLACK BALANCE[*2]
LINEAR MATRIX[*1]
SHADING COMPENSATION[*1]
MASTER PEDESTAL
DETAIL
H. PHASE
SC PHASE
FINE
GAMMA

KNEE[*1]
G SYNC
MEMORY BANK[*1]
MEMORY PROTECT[*1]
DATA SEND[*1]
D-SUB OUT (VBS/Y/C, RGB/
COMPONENT[*1])
BAUD RATE[*1]

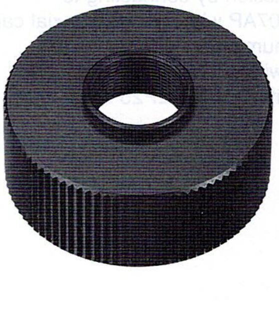
| | |
|---|---|
| Mass: | Approx. 400g (14 oz) |
| Dimensions: | 212(W) × 52.5(H) × 132(D)mm<br>(8$^{3}/_{8}$ × 2$^{1}/_{8}$ × 5$^{1}/_{4}$ inches) |

Supplied accessories:
CCMC-12P05 cable
Operation manual

Note: [*1] When used with the DXC-930P, these items can not be controlled.
[2] When used with the DXC-950P, this item can not be controlled.

## LO-UCMT
### C-mount adaptor for DXC-LS1P

- For mounting C-mount type lens on the DXC-LS1P

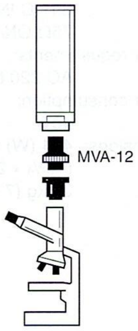


## MVA-12
### Video camera microscope adaptor

- For 2/3-inch video camera with C-mount (DXC-107AP*/151AP)

| | |
|---|---|
| Video camera mount: | C-mount |
| Applicable microscope: | Biological or metallurgical microscope with straight tube |
| Dimensions: | 48(dia.) × 98(L)mm<br>(1$^{15}/_{16}$ × 3$^{7}/_{8}$ inches) |
| Mass: | 120g (4.2 oz) |

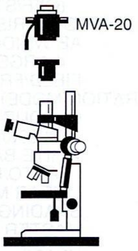
* Although the MVA-12 can also be used with the DXC-107AP(1/2-inch camera), the effective viewing area is to be changed.



## MVA-20
### Microscope adaptor with Auto Iris

- For 2/3-inch video camera with bayonet mount

| | |
|---|---|
| Video camera mount: | Bayonet |
| Applicable microscope: | Biological or metallurgical microscope |
| Dimensions: | 74(dia.) × 116(W) × 104(L)mm<br>(3 × 4$^{5}/_{8}$ × 4$^{1}/_{8}$ inches) |
| Mass: | 600g (1 lb 5 oz) |



AUTO
MAN
GAIN
SONY MVA-20
CAMERA MICROSCOPE ADAPTOR

# 4. Sensor camera accessories

## MVA-33

### Microscope adaptor

- For 2/3-inch video camera with bayonet mount

| | |
|---|---|
| Video camera mount: | Bayonet |
| Applicable microscope: | Biological or metallurgical microscope |
| Dimensions: | 55(dia.) × 100(L)mm<br>($2\frac{1}{4} \times 4$ inches) |
| Mass: | 250g (9 oz) |

## MVAC-33 series

### Coupler

- MVAC-33-N: For NIKON microscopes except the SMZ-10 series
- MVAC-33-SM: For NIKON SMZ-10 series microscopes
- MVAC-33-O: For OLYMPUS microscopes
- Used with the MVA-12/20/33/40/41A

| | |
|---|---|
| Dimensions: | MVAC-33-N;<br>48(dia.) × 44(L)mm<br>($1\frac{15}{16} \times 1\frac{3}{4}$ inches)<br>MVAC-33-SM;<br>47(dia) × 87.5(L) mm<br>($1\frac{7}{8} \times 3\frac{1}{2}$ inches)<br>MVAC-33-O;<br>55(dia.) × 48(L)mm<br>($2\frac{1}{4} \times 1\frac{15}{16}$ inches) |
| Mass: | MVAC-33-N; 50g (1.8 oz)<br>MVAC-33-SM; 125g (5 oz)<br>MVAC-33-O; 100g (3.6 oz) |

MVAC-33-N

MVAC-33-SM

MVAC-33-O

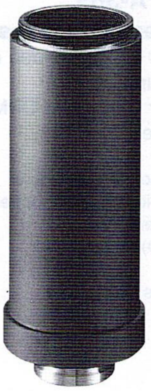
## ZBB and ZSV

### Coupler

- ZBB: For Zeiss microscopes except the AXIOVERT 100/135 series and SV series
- ZSV: For Zeiss AXIOVERT 100/135 series and SV series microscopes
- Used with the MVA-12/20/33/40/41A

| | |
|---|---|
| Dimensions: | ZBB;<br>62(dia.) × 110(L)mm<br>($2\frac{1}{2} \times 4\frac{3}{8}$ inches)<br>ZSV;<br>52(dia) × 131(L) mm<br>($2\frac{1}{8} \times 4\frac{1}{4}$ inches) |

ZBB



ZSV

## MVA-40

### Microscope adaptor

- For mounting the DXC-327BP/9100P/950P/930P series onto various types of microscopes
- Automatic/manual light control

| | |
|---|---|
| Dimensions: | 74 (dia.) × 108(L) mm<br>(max. width of 116 mm)<br>($3 \times 4\frac{3}{8}$ inches)<br>(max. width of 4 5/8 inches) |
| Mass: | 600 g (1 lb 5 oz) |

AUTO
MANU
GAIN

## MVA-41A

### Microscope adaptor

- For mounting the DXC-327BP/9100P/950P/930P series onto various types of microscopes

| | |
|---|---|
| Dimensions: | 50(dia.) × 77(L)mm<br>(2 × 3$^1/_8$ inches) |
| Mass: | 180g (6 oz) |

## MVA-265

### Operation microscope adaptor (one way)

- For 1/2-inch video camera with bayonet mount (DXC-9100P/950P/930P)
- For Carl Zeiss OPMI series/TOPCON 600 series

| | |
|---|---|
| Video camera mount: | Bayonet |
| Applicable microscope: | Operation microscope |
| Dimensions: | 148(W) × 92(H) × 50(D)mm<br>(5$^7/_8$ × 3$^5/_8$ × 2 inches) |
| Mass: | 550g (1 lb 3 oz) |

## MVA-365

### Operation microscope adaptor (one way)

- For 2/3-inch video camera with bayonet mount
- For Carl Zeiss OPMI series/TOPCON 600 series

| | |
|---|---|
| Video camera mount: | Bayonet |
| Applicable microscope: | Operation microscope |
| Dimensions: | 80(W) × 154(H) × 86(D)mm<br>(3$^1/_4$ × 6$^1/_8$ × 3$^1/_2$ inches) |
| Mass: | 650g (1 lb 7 oz) |

## MVA-380

### Operation microscope adaptor (two way)

- For 2/3-inch video camera with bayonet mount
- For Carl Zeiss OPMI series/TOPCON 600 series
- Focus can be remotely controlled by the supplied remote controller

| | |
|---|---|
| Video camera mount: | Bayonet |
| Applicable microscope: | Operation microscope |
| Dimensions: | 70 (W) × 94 (H) × 184 (D) mm<br>(2$^7/_8$ × 3$^3/_4$ × 7$^1/_4$ inches) |
| Mass: | 750g (1 lb 10 oz) |

## **RM-S2/S5 series** (by Fujinon)

### Remote controller

- RM-S2 series for servo zooming and focusing
- RM-S5 series for servo zooming and manual focusing

RM-S2 series: RM-S2C/S2D
RM-S5 series: RM-S5D

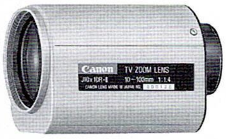
**RM-S2**

## LENSES FOR DXC-151AP (2/3-inch C mount type)

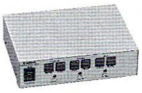
| | J10 × 10REA-IA-II* | VCL-1106YM |
|---|---|---|
| Mount | C | C |
| Focal length | 10 to 110mm | 11.5 to 69mm |
| Zoom ratio | 10× | 6× |
| Zoom control | Remote | Manual |
| Iris control | Auto | Manual |
| Maximum aperture ratio | 1.4 | 1.4 |
| Filter size | 62mmø | 46mmø |
| Supplied accessory | Remote control box CC-8T-II, MD cable (10m) | — |
| Mass | Lens: 700g (1 lb 9 oz)<br>CC-8T-II: 1.3kg (2 lb 14 oz) | 410g (14 oz) |
| Dimensions | Lens:<br>80(W) × 70(H) × 122.3(D)mm<br>(3 1/4 × 2 7/8 × 6 1/2 inches) | 58(dia.) × 107.8(L)mm (2 3/8 × 4 1/4 inches) |
| Power requirements | AC100/117/220/240V, 50/60Hz (CC-8T-II) | — |
| Notes | By Canon | By Canon |

* Auto-iris control by the E-E amps, which are installed in the lenses, makes the J10 × 10REA-IA-II particularly suitable for multi-camera operation by a single remote control box.

## LENSES FOR DXC-151AP (2/3-inch C mount type)



**J10 × 10R-II**
**J10 × 10REA-II**

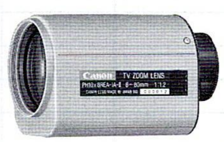


CC-8T-II (Supplied to J10 × 10R-II, PH10 × 8REA-IA-II)
Dimensions: 170(W) × 45(H) × 130(D)mm
(6 3/4 × 1 13/16 × 5 1/8 inches)

| | J10 × 10R-II |
|---|---|
| Mount | C |
| Focal length | 10 to 110mm |
| Zoom ratio | 10× |
| Zoom control | Remote |
| Iris control | Remote |
| Maximum aperture ratio | 1.4 |
| Filter size | 62mmø |
| Supplied accessory | Remote control box CC-8T-II, MD cable (10m) |
| Mass | Lens: 700g (1 lb 9 oz)<br>CC-8T-II: 1.3kg (2 lb 14 oz) |
| Dimensions | Lens:<br>80(W) × 70(H) × 122.3(D)mm<br>(3 1/4 × 2 7/8 × 6 1/2 inches) |
| Power requirements | AC100/117/220/240V, 50/60Hz (CC-8T-II) |
| Notes | By Canon |

# 4. Sensor camera accessories

## LENSES FOR DXC-107AP (1/2-inch C mount type)



| | PH10 × 8REA-IA-II |
|---|---|
| Mount | C |
| Focal length | 8 to 80mm |
| Zoom ratio | 10× |
| Zoom control | Remote |
| Iris control | Auto |
| Maximum aperture ratio | 1.2 |
| Filter size | 62mmø |
| Supplied accessory | Remote control box CC-8T-II, MD cable (10m) |
| Mass | Lens: 700g (1 lb 9 oz)<br>CC-8T-II: 1.3kg (2 lb 14 oz) |
| Dimensions | Lens:<br>70(W) × 80(H) × 126.6(D)mm<br>($2^7/_8$ × $3^1/_4$ × 5 inches) |
| Power requirements | AC100/117/220/240V, 50/60Hz (CC-8T-II) |
| Notes | By Canon |

## LENSES FOR DXC-950P/930P (1/2-inch Bayonet mount type)

| | | | | | |
|---|---|---|---|---|---|
| | VCL-707BXM | S16 × 6.7BMD-D38 | VCL-714BXEA | VCL-716BXEA | YH17X7 KTS B (by Canon) |
| Mount | Bayonet | Bayonet | Bayonet | Bayonet | Bayonet |
| Focal length | 7.5 to 52.5mm | 6.7 to 107 mm | 7.5 to 105mm | 7 to 112mm | 7 to 119mm |
| Zoom ratio | 7× | 16× | 14× | 16× | 17× |
| Zoom control | Manual | Remote | Remote | Remote | Remote |
| Focus control | Manual | Remote | Remote | Remote | Remote |
| Iris control | Manual | Remote | Remote | Remote | Remote |
| Maximum aperture ratio | 1.6 | 1.4 | 1.4 | 1.4 | 1.4 |
| Minimum object distance | 0.3m | 0.9 m | 1.1m | 1.0m | 0.95m |
| Macro | Not applicable | Applicable | Applicable | Applicable | Applicable |
| Filter size | M58 × 0.75mm | M77 × 0.75mm | M72 × 0.75mm | M86 × 1.0mm | M82 × 0.75mm |
| Mass | 560 g (1 lb 4 oz) | 1.25 kg (2.7 lb) | 1.13 kg (2 lb 6 oz) | 1.8kg (3 lb 15 oz) | 1.7kg (3 lb 12 oz) |
| Dimensions | 60(dia.) × 125(L)mm<br>($2^3/_8$ × 5 inches) | 120(dia.) × 165 (L)mm<br>($4^3/_4$ × $6^1/_2$ inches) | 110(dia.) × 185.9(L)mm<br>($4^3/_8$ × $7^3/_8$ inches) | 120.5(W) × 100(H) × 178(D)mm<br>($4^3/_4$ × 4 × $7^1/_8$ inches) | 128(W) × 97.5(H) × 168.9(D)mm<br>($5^1/_8$ × $3^7/_8$ × $6^3/_4$ inches |
| Notes | — | Zoom/Focus/Iris functions can be remotely controlled from the RM-C950/930 | | | |

# Video camera accessory combinations

| | | DXC-D30P/D30WSP | DXC-637P | DXC-327BP | DXC-950P | DXC-930P | DXC-151AP | DXC-107AP | DXC-9100P | DXC-LS1P |
|---|---|---|---|---|---|---|---|---|---|---|
| Camera control unit | CCU-TX7P | ○ | ○ | | | | | | | |
| | CCU-M7P | ○*1 | ○*1 | ○*2 | | ○ | | | | |
| | CCU-M5P | ○*5 | ○ | ○ | ○ | ○ | | | ○ | |
| AC adaptor | CMA-8ACE | ○ | ○ | ○ | | | | | | |
| | CMA-D2CE | | | | ○ | ○ | ○ | ○ | ○ | ○ |
| | CMA-D7CE | | | | | | | ○ | | |
| | YS-W250P | | | | | | | ○ | | |
| Viewfinder | DXF-701CE | ○ | | | | | | | | |
| | DXF-601CE | | ○ | ○ | | | | | | |
| | DXF-501CE | | ○ | ○ | | | | | | |
| | DXF-40BCE | | ○ | ○ | | | | | | |
| | DXF-50BCE | | ○ | ○ | | | | | | |
| Carrying case | LC-420 | | | ○ | | | | | | |
| | LC-421 | ○ | ○ | | | | | | | |
| | LC-304SFT | ○ | ○ | ○ | | | | | | |
| Tripod adaptor | VCT-12 | | | | | | | | | |
| | VCT-14 | ○ | ○ | ○ | | | | | | |
| | VCT-U14 | ○ | ○ | ○ | | | | | | |
| Inter-com headset | DR-100 | ○ | ○ | ○ | | | | | | |
| Microscope/endoscope adaptor | MVA-12 | | | | | | ○ | △*3 | | |
| | MVA-20 | ○ | ○ | | | | | | | |
| | MVA-33 | ○ | ○ | | | | | | | |
| | MVAC-33 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| | MVA-40 | | | ○ | ○ | ○ | | | ○ | |
| | MVA-41A | | | ○ | ○ | ○ | | | ○ | |
| | MVA-265 | | | | ○ | ○ | | | ○ | |
| | MVA-365 | ○ | ○ | | | | | | | |
| | MVA-380 | ○ | ○ | | | | | | | |
| | ZBB/ZSV | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| Others | DC-520 | ○ | ○ | ○ | | | | | | |
| | CAC-4 | ○ | ○ | ○ | | | | | | |
| | CAC-12 | ○ | ○ | ○ | | | | | | |
| | RM-M7G | ○ | ○*1 | ○*2 | | | | | | |
| | CA-327P | ○*4 | ○*4 | ○*4 | | | | | | |
| | CA-537P | ○ | ○ | ○ | | | | | | |
| | CA-511 | ○ | ○ | ○ | | | | | | |
| | CA-512P | ○ | ○ | | | | | | | |
| | CA-513 | ○ | ○ | ○ | | | | | | |
| | CA-325AP | ○ | ○ | ○ | | | | | | |
| | CA-325B | ○ | ○ | ○ | | | | | | |
| | LO-32BMT | | | ○ | ○ | ○ | | | ○ | |
| | LO-UCMT | | | | | | | | | ○ |
| | RM-C950 | | | ○ | ○ | | | | ○ | |
| | RM-930 | | | | △ | ○ | | | | |

○ Recommendable △ Usable

[1] Gamma control cannot be used.

[2] Knee and gamma controls cannot be used.

[3] Although the MVA-12 is the Microscope Adaptor for 2/3-inch video cameras, it can also be used with the DXC-C1/107AP. In this case, the effective viewing area is changed.

[4] Available for CA-327P models with serial No. 40101 and above.

[5] Matrix (STD, H.SAT, FL) cannot be controlled.

# SECTION 3 NON-LINEAR EDITING SYSTEM/EDITOR/DME/SWITCHER

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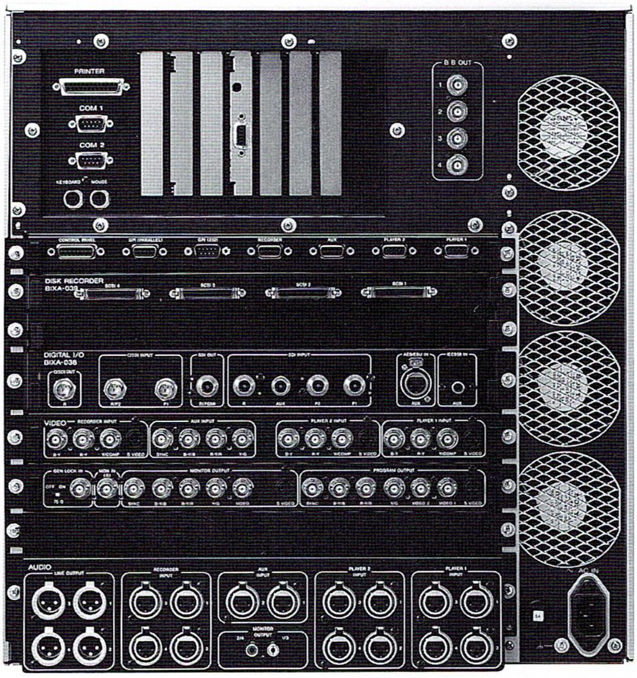
## ES-7

### EditStation

•The digital system for power production •Direct Digital Link with DSR-85P VTR •x4 Transferring capability when combined with the DSR-85P VTR •High picture quality •Hybrid operation capability including the unique Disk B-roll™ operation •SDI and QSDI digital interface capability with optional boards •2-channel playback and 1-channel recording for real-time layering •Sophisticated Graphical User Interface (GUI) provided for efficient operation •ClipLink™ operation to save valuable disk space and time •Superb performance DME Switcher •Multiple input/output formats provided •Direct touch graphics function to enable graphics creation to be performed directly on the live video •Fully automated audio-follow-video performance •Variable compression rate •Optional ESDraw kit available in addition to the standard TextComposer •Control panel available for intuitive operation

SONY
EDIT STATION
ES-7

| | |
|---|---|
| Supplied accessories: | Power cord<br>Mouse<br>Keyboard<br>Extansion cables for keyboard and mouse (4m)<br>Parallel GPI D-sub 15-pin connector<br>Software and online manual (CD-ROM disc)<br>Windows NT package (CD-ROM disc and manual)<br>Operating instructions<br>Software license Agreement<br>User registration card |
| Optional accessories: | Control Panel ESBK-7011<br>Basic DME Switcher Board ESBK-7021<br>3D Effect Board for Basic DME Switcher Board ESBK-7022<br>Advanced DME Switcher Board ESBK-7023<br>3D Effect Board for Advanced DME Switcher Board ESBK-7024<br>QSDI Interface Board ESBK-7031<br>SDI Interface Board ESBK-7032<br>Disk Recorder Board ESBK-7041<br>Disk Unit ESBK-7045<br>SCSI Option ESBK-7051<br>Ethernet Option ESBK-7052<br>SCSI Cable ESBK-7053<br>Additional Memory Set ESBK-7054<br>ESDraw ESBK-7071<br>EditStation Operation Manual ESBK-7091E/F/G<br>ESDraw Operation Manual ESBK-7092E/F/G<br>Rack Mount Kit for ES-7 RMM-ES7<br>Rack Mount Kit for ESBK-7045 RMM-ES701 |



Rear Panel of ES-7

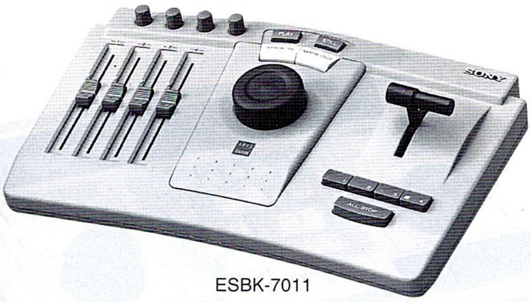
## Specification

**General**

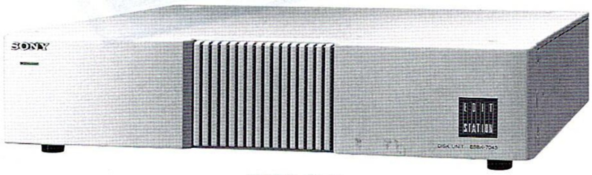
| | |
|---|---|
| Power requirement: | AC 220/240V, 50/60Hz |
| Operating voltage: | AC 180 to 264V, 48 to 63Hz |
| Power consumption: | Main Unit (ES-7): Approx. 450W<br>Disk Unit (ESBK-7045): Approx. 100W |
| Operating temperature: | 5 to 35°C (41 to 95°F) |
| Dimensions: | Main Unit (ES-7):<br>424 (W) × 431.6 (H) × 478 (D) mm<br>(16¾ × 17 × 18⅞ inches)<br>Disk Unit (ESBK-7045):<br>424 (W) × 88 (H) × 478 (D) mm<br>(16¾ × 3½ × 18⅞ inches)<br>Control Panel (ESBK-7011):<br>372 (W) × 76 (H) × 228 (D) mm<br>(14¾ × 3 × 9 inches) |
| Mass: | Main Unit (ES-7):<br>35 kg (77 lb 3 oz)<br>Disk Unit (ESBK-7045):<br>14 kg (30 lb 14 oz)<br>Control panel (ESBK-7011):<br>1.7 kg (3 lb 12 oz) |

**PC**

| | |
|---|---|
| CPU: | Pentium 200MHz |
| OS: | Windows NT4.0 |
| Memory: | 64MB |
| Hard disk drive: | 1 × IDE |
| Floppy disk drive: | 1 × 720KB/1.44MB |
| CD-ROM drive: | 1 × ATAPI |
| Card slot: | 32-bit PCI bus (33MHz) and 16-bit ISA bus |



ESBK-7011



ESBK-7045

| | |
|---|---|
| VGA: | 1024 × 768, 65K colors |
| Mouse: | 1 × Mini Din 6-pin |
| Keyboard: | 1 × Mini Din 6-pin |

**Video**

| | |
|---|---|
| Analogue video inputs: | 3 sources (P1/P2/R) selectable from Y/R-Y/B-Y, Composite or Y/C<br>BNC: Y/R-Y/B-Y, Composite<br>MiniDin 4-pin: Y/C<br>1 sources (AUX) selectable from Composite, Y/R-Y/B-Y or G/B/R/Sync., BNC<br>1 × Gen. Lock IN, BNC |
| Digital video inputs: | 2 (P1, P2/R) × QSDI, BNC<br>3 (P1, P2, R) × SDI, BNC |
| Analogue video outputs: | PGM & MONITOR outputs, Y/R-Y/B-Y, G/B/R/Sync., Composite and Y/C<br>BNC: Y/R-Y/B-Y, G/B/R/Sync., Composite<br>MiniDin 4-pin: Y/C<br>4 × Black Burst output, BNC |
| Digital video outputs: | 1 × SDI PGM output (R), BNC<br>1 × QSDI PGM output (R), BNC |

**Audio**

| | |
|---|---|
| Audio: | Up to 22-ch input and 4-ch output |
| Analogue audio inputs: | 4-ch × 3 sources (P1/P2/R), XLR 3-pin<br>2-ch × 1 source (AUX), XLR 3-pin |
| Digital audio inputs: | 2-ch × 1 source (AUX), selectable from AES/EBU or IEC-958 |
| Analogue audio outputs: | LINE OUT: 4-ch, XLR 3-pin<br>MONITOR OUT: 2-ch (1/3 & 2/4), Pin-jack |
| Digital audio outputs: | Multiplied as SDI/QSDI |

**Compression**

| | |
|---|---|
| Compression scheme: | DV Compression |

**DME Switcher**

| | |
|---|---|
| Basic DME Switcher: (ESBK-7021) | Y:R-Y:B-Y=4:1:1, 13.5MHz, 8-bit<br>Chromakey & luminance key: 1 bit (linear key)<br>Downstream keyer: 8 bit |
| Advanced DME Switcher: (ESBK-7023) | Y:R-Y:B-Y=4:2:2, 13.5MHz, 8-bit<br>Chromakey & luminance key: 8 bit (linear key)<br>Downstream keyer: 8 bit |

**Control**

| | |
|---|---|
| P1, P2, AUX & R: | RS-422A, D-Sub 9-pin |
| GPI (Serial): | RS-232C, D-Sub 9-pin |
| GPI (Parallel): | Active low TTL, D-Sub 9-pin |
| Control Panel: | D-Sub 15-pin |

**Graphics/title**

| | |
|---|---|
| Pixel format: | 4:2:2:4 (Y/R-Y/B-Y/Alpha) |
| Font: | True type |
| Import format: | BMP, TGA |

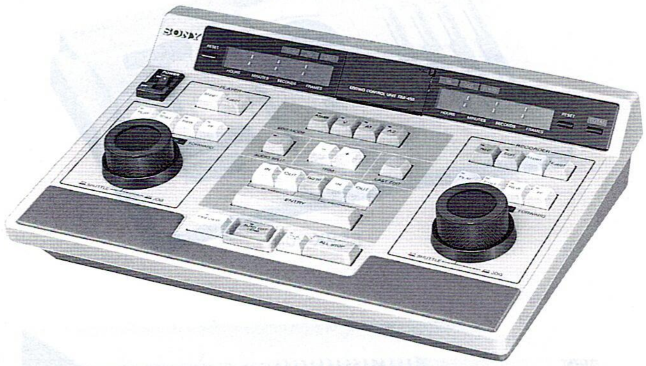
**Others**

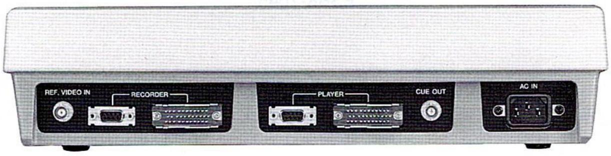
| | |
|---|---|
| EDL export format: | Compatible with Sony BVE-2000/5000/9100 |

## RM-450CE

### Editing control unit

•Can be connected to 33-pin equipped editing VTR and 9-pin equipped editing VTR on both the player side and recorder side •When a 9-pin equipped editing VTR is connected, the RM-450CE not only allows CTL based editing but also makes Time Code editing possible •Provides the Relative Time Code (RTC) editing mode, in which time code is used as an edit reference and time code progress is like CTL on the LED counter •The AUDIO COUNTER RESET function automatically sets the editing point first designated to "0:00:00:00" •Can use the Assemble and Insert (V/A1/A2) edit modes, and provides editing functions such as editing IN-POINT/OUT-POINT ENTRY, PREVIEW, TRIM, AUTO EDIT/END, REVIEW/ JUMP, GO TO, AUDIO SPLIT, and LAST EDIT •The function keys are laid out to enable easy operation •Provides the JOG/SHUTTLE dials on both the player side and recorder side •Accepts REF. VIDEO IN (reference video input) for synchronized operation •Can memorize the pinch on delay and adjust the editing in-point automatically •Mode setting is very easy and convenient when using the preset switches on the front panel •A cue pulse out is provided for external equipment •Indicates the "Error" and error number on the LED counter along with a warning sound •A built-in self-diagnostic function improves serviceability and make maintenance easy





| | |
|---|---|
| Supplied accessories: | AC power cord<br>Error message chart<br>Operation manual |
| Optional accessories: | 33-pin remote control extension cable RCC-15FT<br>9-pin remote control cable RCC-5G/10G/30G (for VO-9850P/9800P/EVO-9850P/9800P/ UVW-1800P/1600P/BVU/PVW/BVW/ BVH series VTR)<br>Rack mount kit RMM-450 (for 19-inch EIA and SONY SU-512 rack)<br>Double size table SU-450 (for SONY SU rack) |

### Specifications

| | |
|---|---|
| Power requirements: | AC 198 to 264V, 48 to 63Hz |
| Power consumption: | 11W |
| Mass: | Approx. 3.1 kg (61 lb 13 oz) |
| Dimensions: | 390 (W) × 93 (H) × 265 (D) mm<br>(15 × 3¾ × 10½ inches) |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Edit reference: | CTL, SMPTE/EBU LTC, VITC |
| Reference video input: | 0.5Vp-p to 2.0Vp-p negative, 75Ω, unbalanced |
| External sync input: | 0.5Vp-p to 5.0Vp-p negative, 75Ω, unbalanced |
| Cue pulse signal: | Active low: low level 0 to 0.5V/high 3.5 to 5.0V |

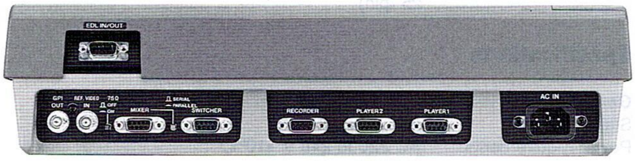
## PVE-500

### Editing control unit

•Three VTR control capability in A/B roll editing •Serial switcher interface via 9-pin RS-422A connection •Both parallel and serial audio mixer interface capability •Handles TC (Time Code), CTL (Control Track Signal), and RTC (Relative Time Code) as editing reference •Assemble and Insert (V, A1, A2) editing capability •Features variable speed control over VTRs equipped with Dynamic Tracking function •Up to 99 edits can be stored in the built-in EDL memory •Audio split edit capability offers effective insertion of sound effects •Snapshot memory number in the DFS-500P and the DFS-300P can be stored and recalled by the Edit Number •Reference video input allows synchronized operation with other equipments •Equipped with an RS-232C interface allowing SAVE/LOAD of the EDL data onto a floppy disk •A GPI output enables basic control of peripheral equipments such as audio tape recorders and title generators which cannot be directly interfaced with the PVE-500 •The two search dial operation enables quick and easy access to the edit points

SONY
PLAYER1
PLAYER2
RECORDER

| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operation manual |
| Optional accessories: | Audio mixer control cable RCC-5AA<br>9-pin remote control cable RCC-5/10/30G<br>Rack mount metal RMM-500 |



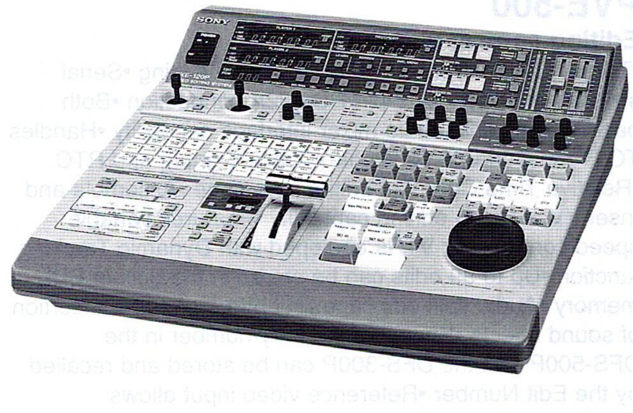
### Specification

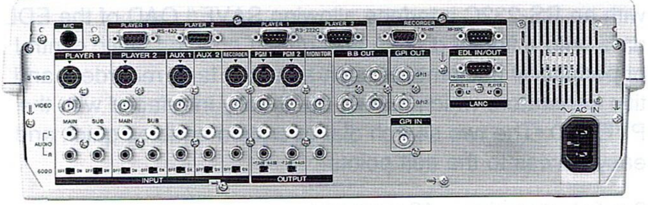
| | |
|---|---|
| **General** | |
| Power requirements: | AC 100/120/220 to 240V ±10%, 47.5 to 63Hz |
| Power consumption: | 11W maximum |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Dimensions: | 390 (W) × 94 (H) × 265 (D) mm<br>(15⅜ × 3¾ × 10½ inches) |
| Mass: | 3.2 kg (7 lb 8 oz) |
| **Systems** | |
| Editing reference: | CTL, RTC, SMPTE/EBU Time Code |
| Edit accuracy: | ±0 frame with time code<br>±1 frame with CTL |
| Memory capacity: | 99 events |
| **Controls** | |
| VTR interface: | RS-422A 9-pin remote connector |
| Switcher interface: | RS-422A 9-pin remote connector |
| Mixer interface: | 9-pin serial/parallel switchable |
| Controllalble VTRs: | 1 recorder and up to 2 players |

## FXE-120P

### Video Editing System

•Integration of an editing controller, video switcher, audio mixer and digital effects generator •Three VTR cotnrol (RS-422/RS-232C) •LANC (Local Application Control bus system) interface for controlling home-use LANC VTRs and camcorders as player VTRs •Time code based editing •Equipped with two busses • GPI input/output •8-bit quantizing, 4:1:1 digital processing •Built-in Frame Synchronizers allow editing without a Time Base Corrector •140 wipe patterns •Digital effects (Mix Effect/Fade Effect/ Input Effects) •Built-in chromakeyer and luminance keyer) •Colour correction capability •25 different colour background •Editing memory for 99 events •Saving/ loading of EDL Data is possible





| | |
|---|---|
| Supplied Accessoreis | AC power cord (1)<br>Instruction manual (1)<br>User's guide (1)<br>LANC cord (2) |
| Optional Accessoreis | RCC-5/10/30G RS-422 remote cable<br>SMF-3036C (RS-232C remote cable, 9-pin to 25 -pin) |

## Specifications

**General**

| | |
|---|---|
| Signal system: | PAL |
| Power requirements: | AC 220 to 240 V ±10%,<br>50/60Hz ± 5% |
| Power consumption: | Maximum 65W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Dimentions: | 424 (W) × 138.5 (H) × 437.5 (D) mm<br>(16¾ × 5½ × 17¼ inches) |
| Mass: | Approx. 7.3 kg (16 lb 1 oz) |

**Systems**

| | |
|---|---|
| Time counter: | Internal time counter (×3) |
| Time count display range: | Time code: 00:00:00:00 to 23:59:59:29<br>CTL: ±9:59:59:29 Full edit mode |
| Editing mode: | Assemble edit: Video, Audio 1/2<br>Insert Edit: Video Audio 1/2<br>First edit, Time code insert<br>Split edit (Audio split offset from video IN point),<br>Dynamic Motion Control (DMC) |
| Eject type: | MIX, WIPE, SYNC-ROLL, CUT, MANUAL 1st Edit, Audio Split Edit, DMC Control |
| Edit reference: | CTL, LTC, SMPTE/EBU time code, 8mm time code, RC time code, DV time code |
| Edit Accuracy: | RS-422: ± 0 frame with TC, ±1 frame with CTL<br>RS-232C: ±1 frame with TC<br>LANC: ±5 frame with RC time code |
| Transition time range: | 0 to 999 (unit: frames) |
| Pinch-on Delay: | Simultaneous measurement of pinch-on delay for up to three VCRs connceted to RS-422/RS-232C/ LANC connectors |
| EDL memory capacity: | 99 edits |
| Split edit reference: | Audio or Video input |

**Control**

| | |
|---|---|
| VTR Interface: | RS-422: 9-pin<br>RS-232C: D-sub 9-pin<br>LANC: stereo mini-mini jack |
| Controllable VTR: | 1 recorder, up to 2 players |
| GPI interface: | GPI IN (BNC)<br>GPI OUT (BNC) × 2 |
| EDL Interface: | EDL IN/OUT (D-sub 9-pin) |

**Video**

**Video inputs**

| | |
|---|---|
| Composite: | BNC × 4 unbalanced<br>(PLAYER 1, PLAYER 2, AUX1, RECORDER)<br>Video: 1.0Vp-p, 75 ohms<br>Sync: 0.286Vp-p<br>Burst: 0.286Vp-p |
| S-Video | 4-pin x 4 unbalanced<br>Mini DIN 4-pin x 2, PGM1, PGM2<br>Y: 1.0Vp-p, 75 ohms, sync negative<br>C: 0.286Vp-p, 75 ohms<br>Bust sync: 0.286Vp-p |

**Video Outputs**

| | |
|---|---|
| Composite: | BNC × 3, unbalanced<br>(PGM 1, 2, MONITOR)<br>Video: 1.0 Vp-p, 75 ohms, sync negative<br>Sync: 0.286 Vp-p<br>Burst: 0.286 Vp-p |
| S-Video | 4-pin × 2 unbalanced<br>Sync: 0.286 Vp-p<br>Burst: 0.286 Vp-p |
| Black burst out: | BNC × 4, unbalanced<br>Sync: 0.286 Vp-p,<br>Burst: 0.286 Vp-p |

**Audio**

| | |
|---|---|
| Audio Inputs (stereo) | AUDIO L/R INPUT (phono jack), (2 channels × 5)<br>PLAYER 1 MAIN (2), SUB (2)<br>PLAYER 2 MAIN (2), SUB (2)<br>RECORDER (2)<br>AUX 1 (2)<br>AUX 2 (2)<br>Input impedence: selectable with 600 ohms terminal switch<br>Input level: –7.5dBs (input impedance 47kΩ or above, 600Ω switch OFF)<br>+4dBs (input impedance 600Ω, 600Ω switch ON) |
| Mic Input (monaural) | Phone × 1, unbalanced<br>Input level: –60dBs,<br>Input impedance: more than 4.3KΩ or above |
| Audio Outputs (stereo) | AUDIO L/R OUTPUT (phono jack) × 6<br>PGM 1(2), PGM 2(2), MONITOR (2)<br>Output level: –7.5dB/+4.0dB selectable<br>Output Impedance: 47KΩ (–7.5dBs/+4.0dBs) |

**Signal Processing**

| | |
|---|---|
| Sampling rate: | Y: 910 fH (fH = 15.734kHz)<br>R-Y/ B-Y: 1/4 × 910 fH |
| Quantization: | Y/R-Y/B-Y: 8-bit |
| Frequency response: | 0 to 5MHz +1dB/–1dB |
| Signal to noise ratio: | More than 53dB |
| Y/C delay: | Less than 50ns (Composite) |

**Recommended LANC VTRs**

| | |
|---|---|
| Camcorders: | CCD-VX1E, CCD-TR2000E,<br>CCD-TR3E, CCD-V6000E,<br>CCD-V800E, CCD-TR3000E,<br>DCR-VX700E, DCR-VX1000E |
| Player VTR: | EV-S9000E, EV-C2000E, DHR-1000 |

# IF-FXE2

## LANC Interface Box

•Converts the RS-422A protocol to LANC protocol •Supports connection between recorder LANC VTR's and FXE-100UPG*[1]/FXE-120 •Supports connection between player LANC VTR's and RM-450/PVE-500 •Allows easy system integration of the DSR-30/200 (DVCAM format) and LANC VTR's

SONY
POWER
i/Fbox
LANC INTERFACE BOX IF-FXE2

*1 FXE-100UGP is an FXE-100 which is upgraded with FXE-KIT1.
Please contact your nearest Sony office.

| | |
|---|---|
| Supplied Accessories: | LANC Connecting Cord (Stereo mini-mini) (1)<br>AC Power Adaptor (1)<br>Instruction Manual (1)<br>List of the recommended products (1) |
| Optional Accessories: | RS-422 Remote Control Cable: RCC-5G/10G/30G |

## Specifications

**General**

| | |
|---|---|
| Mass: | Approx. 500 g (17.6 oz) |
| Dimensions: | Approx. 106 (W) × 40 (H) × 163 (D) mm<br>(4 ¼ × 1⅝ × 6½ inches) |
| Power requirements: | DC 6 V |
| Power consumption: | Less than 3W (with the supplied AC power adaptor) |
| Operating temperature: | 5 C to 40°C |
| Storage temperature: | –20 C to 60°C |
| Operational position: | Horizontal or vertical |

**Connectors**

| | |
|---|---|
| RS-422A port: | D Sub 9-pin (1) |
| LANC port: | Stereo mini-mini jack (1) |
| DC input: | 6V (1) |

**Function Switches**

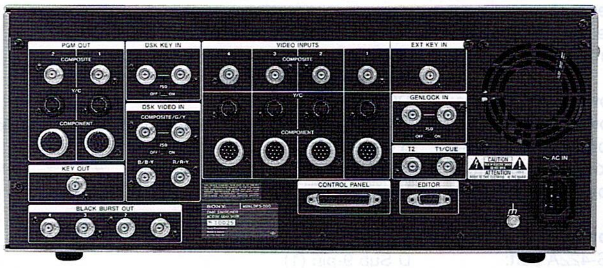
| | |
|---|---|
| Power: | Seesaw Switch (1) |
| Learn: | Push Switch (1) and LED (1) |
| Preset: | Dip Switch (4bit) |

## DFS-500P

### DME switcher

•Video switcher equipped with powerful digital multi effector •More than 300 factory preset effect patterns including non-linear digital effects •Up to 40 manually created effect patterns can be stored in the User Programme memory system for subsequent recall •Built-in two frame synchronizer accept non time base corrected video signals •4:1:1 digital component processing realizes high picture quality •Accepts component, composite and S-VIDEO signals to be processed simultaneously •Composed of 2 busses and 4 primary inputs •15 original background patterns •Up to 99 panel status storage in the Snap Shot memory system •Equipped with 5 individual colour matte generators •Built-in title keyer •Equipped with fader lever to allow manual picture transition •Perfect interface capabilities with BVE-3000P Series •Simple A/B roll editing system with PVE-500 •Modular design composed of a control panel and a processor unit •Down stream keyer function available with optional board •Lighting, trail, shadow and drop border effects are available with optional board

Rear Panel of Processor



**Typical preset patterns**
mosaic, mirror, negative, solarization, posterization
picture in picture, ripple wipe, sphere, page turn, page roll, split, slide, melt down, stream, flag

| | |
|---|---|
| Supplied accessories: | AC power cord<br>25-pin control cable, 10m<br>Label 1 set<br>Operation Manual |
| Optional accessories: | BKDF-501P Trail and lighting board<br>Provides drop border, shadow, trail and lighting effects.<br>BKDF-504P DSK board<br>Provides 8bit down stream keyer.<br>BKDF-503 Rack mount kit<br>Enables the control panel to be mounted onto the editing console. |

## Specifications

**General**

| | |
|---|---|
| Power requirements: | AC 220/240V, 50/60Hz |
| Operating voltage: | AC 180 to 264V, 48 to 63Hz |
| Power consumption: | 140W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Dimensions: | Control Panel: 424 (W) × 116 (H) × 344 (D) mm (16¾ × 4⅝ × 13⅝ inches)<br>Processor Unit: 424 (W) × 177 (H) × 450 (D) mm (16¾ × 7 × 17¾ inches) |
| Mass: | Control Panel: 3 kg (6 lb 10 oz)<br>Processor Unit: 17 kg (35 lb 4 oz) |

**Input Signals**

| | |
|---|---|
| VIDEO INPUTS 1 through 4 | |
| Composite: | BNC type (1 in each)<br>VIDEO: 1.0Vp-p, 75Ω<br>SYNC: 0.3Vp-p<br>BURST: 0.3Vp-p<br>Y/C: 4-pin (1 in each)<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω<br>SYNC: 0.3Vp-p |
| Component: | 12-pin (1 in each)<br>Y: 1.0Vp-p, 75Ω<br>R-Y/B-Y: 0.525Vp-p, 75Ω |
| DSK VIDEO IN | |
| Composite/G/Y:<br>Composite: | BNC type<br>VIDEO 1.0Vp-p, 75Ω<br>SYNC 0.3Vp-p<br>BURST 0.3Vp-p<br>Y: 1.0Vp-p, 75Ω<br>G: 0.7Vp-p, 75Ω |
| B/B-Y: | BNC type<br>B-Y: 0.525Vp-p, 75Ω<br>B: 0.7Vp-p, 75Ω |
| R/R-Y: | BNC type<br>R-Y: 0.525Vp-p, 75Ω<br>R: 0.7Vp-p, 75Ω |
| EXT KEY IN: | BNC type 1.0Vp-p, 75Ω |
| DSK KEY IN: | BNC type 1.0Vp-p, 75Ω |
| GEN LOCK IN: | BNC type<br>Sync: 0.3Vp-p<br>Burst : 0.3Vp-p |

**Output Signals**

| | |
|---|---|
| PGM OUT 1 and 2 | |
| Composite: | BNC type<br>VIDEO: 1.0Vp-p, 75Ω<br>SYNC: 0.3Vp-p<br>BURST: 0.3Vp-p |
| Y/C: | 4-pin<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω<br>SYNC: 0.3Vp-p |
| Component: | 12-pin<br>Y: 1.0Vp-p, 75Ω<br>R-Y/B-Y: 0.525Vp-p, 75Ω |
| KEY OUT: | BNC type: 1.0Vp-p, 75Ω |
| BLACK BURST OUT: | BNC type<br>SYNC: 0.3Vp-p, 75Ω<br>BURST: 0.3Vp-p, 75Ω |

**Signal Processing**

| | |
|---|---|
| Sampling Rate: | Y: 908fH (fH : 15.625 kHz)<br>R-Y/B-Y: 1/4 × 908fH |
| Quantization: | Y/R-Y/B-Y: 8 bits |
| Linearity (Composite output): | DG: Less than 3.5% composite input<br>Less than 2% component/S input<br>DP: Less than 2.5°composite input<br>Less than 1° component/S input |
| Cross talk: | Less than -50dB |
| Frequency response: | 0 to 5 MHz +0.5dB/–1dB |
| S/N: | More than 51dB (composite)<br>More than 55dB (Y/C, component) |
| Y/C delay: | Less than 20ns (component)<br>Less than 50ns (composite) |

**Control Signals**

| | |
|---|---|
| Editor: | 9-pin remote |
| T1/T2, cue: | BNC type |
| Control Panel: | 25-pin remote |

# DFS-300P

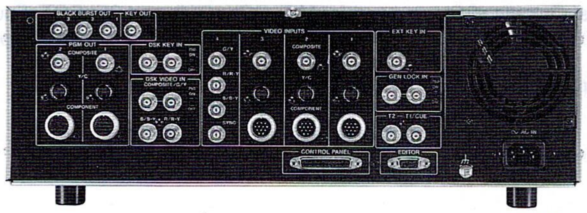
## DME switcher

•Video switcher equipped with powerful digital multi effector •More than 300 factory preset effect patterns including 2D digital effects •With the optional board BKDF-301P, 3D linear and non linear factory preset effect patterns can be added •Up to 20 manually created effect patterns can be stored in the User Programme memory system for subsequent recall •With the optional board BKDF-301P, up to 40 effect patterns can be manually created and stored in the User Programme memory system •Built-in two frame synchronizers accept non time base corrected video signals •4:1:1 digital component processing realizes high picture quality •Accepts component, composite and S-video signals •Accepts RGB signals for graphic image data processing •Composed of two busses and four primary inputs • 31 original background patterns •Up to 99 snapshots can be stored in the Snap Shot memory system •Equipped with five individual colour matte generator •Built-in chromakeyer, title keyer and colour correction controller •Equipped with fader lever to allow manual picture transition •Provides simple A/B roll or two machine editing system with PVE-500 •Modular design composed of a control panel and a processor unit •8-bit Down Stream Keyer function available with optional board BKDF-504P •3D and non-linear effects are available with optional board BKDF-301P

**Typical preset patterns**
mosaic, mirror, negative, solarization, posterization, split, slide, melt down, stream, etc

| | |
|---|---|
| Supplied accessories: | AC power cable<br>25-pin control cable (10m)<br>Operation manual |
| Optional accessories: | BKDF-301P 3D effect board<br>Provides 3D effect, non-linear effect<br>BKDF-503 Rack mount kit<br>BKDF-504P DSK board |

Rear Panel of Processor



### Specifications

**General**

| | | |
|---|---|---|
| Power requirements: | AC220V or 240V, 50/60Hz | |
| Operating Voltage: | AC180 to 264V, 48 to 63Hz | |
| Power consumption: | 80W | |
| Operating temperature: | 0 to 40˚C (32 to 104˚F) | |
| Dimensions: | Control panel: | 424 (W) × 69 (H) × 287 (D) mm<br>(16¾ × 2¾ × 11⅜ inches) |
| | Processor: | 424 (W) × 132 (H) × 450 (D) mm<br>(16¾ × 5¼ × 17¾ inches) |
| Mass: | Control panel: | 2.3 kg (5 lb 1 oz) |
| | Processor: | 13.0 kg (28 lb 10 oz) |

**Inputs/Outputs**

| | | |
|---|---|---|
| Primary video inputs 1 to 3/Programme video outputs: | | |
| Composite (PAL) | Connector: | BNC type (× 1, each) |
| | Video: | 1.0Vp-p, 75Ω |
| | Sync: | 0.3Vp-p |
| | Burst: | 0.3Vp-p |
| S-video (Y/C) | Connector: | DIN-4-pin (× 1, each) |
| | Y: | 1.0Vp-p, 75Ω |
| | C: | 0.3Vp-p, 75Ω, burst<br>Sync:0.3Vp-p |
| Component (Betacam) | | |
| | Connector: | 12-pin (× 1, each) |
| | Y: | 1.0Vp-p, 75Ω |
| | R-Y/B-Y: | 0.525Vp-p |
| Primary video inputs 4: | | |
| Y/G | Connector: | BNC type |
| | Y: | 1.0Vp-p, 75Ω |
| | G: | 0.7Vp-p, 75Ω |
| R-Y/R | Connector: | BNC type |
| | R-Y: | 0.525Vp-p, 75Ω |
| | R: | 0.7Vp-p, 75Ω |
| B-Y/B | Connector: | BNC type |
| | B-Y: | 0.525Vp-p, 75Ω |
| | B: | 0.7Vp-p, 75Ω |
| Sync | Connector: | BNC type |
| | 0.3 to 4.0Vp-p, 75Ω | |
| DSK Video Inputs: | | |
| Composite/G/Y (PAL) | | |
| | Connector: | BNC type (× 2, loop-through) |
| | Video: | 1.0Vp-p, 75Ω |
| | Sync: | 0.3Vp-p |
| | Burst: | 0.3Vp-p |
| | Y: | 1.0Vp-p, 75Ω |
| | G: | 0.7Vp-p, 75Ω |
| B/B-Y | Connector: | BNC type |
| | B-Y: | 0.525Vp-p |
| | B: | 0.7Vp-p, 75Ω |
| R/R-Y | Connector: | BNC type |
| | R-Y: | 0.525Vp-p |
| | R: | 0.7Vp-p, 75Ω |
| EXT KEY IN/DSK KEY IN/KEY OUT: | | |
| | Connector: | BNC type (× 1, each) |
| | 1.0Vp-p, 75Ω | |
| GEN LOCK IN: | Connector: | BNC type (× 2, loop-through) |
| | Video: | 1.0Vp-p, 75Ω |
| | Sync: | 0.3Vp-p |
| | Burst: | 0.3Vp-p |
| BLACK BURST OUT 1 to 3: | | |
| | Connector: | BNC type (× 3) |
| | Sync: | 0.3Vp-p (75Ω) |
| | Burst: | 0.3Vp-p (75Ω) |

**Signal Processing**

| | | |
|---|---|---|
| Frequency response: | 0 to 5MHz (Ref. 1MHz) +0.5dB/–1dB | |
| Linearity: | DG | 3.5% (composite input)<br>2.0% (component/S input) |
| | DP | 2.5˚ (composite input)<br>1.0˚ (component/S input) |
| Crosstalk: | –50dB | |
| S/N: | 51dB (composite)<br>55dB (Y/C, component) | |
| Y/C delay: | Less than 20ns (component)<br>Less than 50ns (composite) | |
| Sampling rate: | Y: | 908fH (fH: 15.625kHz) |
| | R-Y/B-Y: | 1/4 × 908fH |
| Quantization: | Y/R-Y/B-Y: 8 bits | |

**Control Signals**

| | |
|---|---|
| EDITOR: | D-sub 9-pin, 9-pin remote (RS-422A) |
| T1/CUE IN/T2 IN: | BNC type (× 1, each), TTL level |
| CONTROL PANEL: | D-sub 25-pin, 25-pin rermote (RS-422A) |

## BVS-3200P /3200CP

### Composite/Component Video Switcher

•Choice of composite or component version:
BVS-3200P Composite Video Switcher
— Accepts composite video signals
BVS-3200CP Component Video Switcher
— Accepts composite or a combination of RGB, Y/R-Y/B-Y component signals
— 12-pin Component Video Connector Inputs/Outputs for Betacam VTRs are provided
•Ten Primary inputs (including colour black and colour background) •One M/E and two KEY Busses/Processors (assignable) •KEY OVER function •Two common EXT KEY sources and FILL available for both KEYER •One EXT KEY source and FILL available for DSK •Ten basic and eight matrix wipe patterns with modifiers •Fully adjustable internal BOX MASK and EXT MASK inputs •Four COLOUR MATTE GENERATORs for BACKGROUND, EFF/BORDER (KEY 1 and KEY 2), and DSK •CHROMAKEYER (RGB or Y/R-Y/B-Y selectable) •DSK with BORDER, DROP SHADOW, OUTLINE-2H/4H selectable •FADE to BLACK (FTB) function •Auto Transition for M/E, DSK, and FTB •RS-422A interface •Communication of E-File and initial panel information with BVE-2000/9100 •DFS-500P interface •Four Black Burst Outputs •GPI Input port for M/E, DSK, FTB, and SELECT •Four (BVS-3200CP)/two (BVS-3200P) PGM Outputs and one PVW Output

| | |
|---|---|
| Supplied accessories: | AC power cord<br>Control panel cable (5m)<br>Extension board |
| Optional accessories: | SWC-2530D Control panel cable (30m)<br>RMM-3000 Rack mount kit |

### Specifications

| | |
|---|---|
| Power requirements: | AC 100 to 240V ±10%, 50/60Hz ±10% |
| Power consumption: | BVS-3200P: 140W<br>BVS-3200CP: 190W |
| Operating temperature: | 0° to 40°C (32° to 104°F) |
| Storage temperature: | –20° to 60°C (–4° to 140°F) |
| Dimensions: | |
| Control panel: | Approx. 424 (W) × 111 (H) × 440 (D) mm<br>(16¾ × 4⅛ × 17⅜ inches) |
| Processor unit: | BVS-3200P:<br>Approx. 424 (W) × 132 (H) × 397 (D) mm<br>(16¾ × 5¼ × 15¾ inches)<br>BVS-3200CP:<br>Approx. 424 (W) × 176 (H) × 450 (D) mm<br>(16¾ × 7 × 17¾ inches) |
| Mass: | |
| Control panel: | Approx. 4.4 kg (9 lb 11 oz) |
| Processor unit: | BVS-3200P:<br>Approx. 13 kg (28 lb 11 oz)<br>BVS-3200CP:<br>Approx. 18 kg (39 lb 11 oz) |

*For further information, please contact the nearest Sony office.

---

## BVS-3100P

### Composite Video Switcher

•Ten Primary inputs (including colour black and colour background) •One M/E and one KEY Bus •Two EXT KEY sources and FILL available for KEYER •One EXT KEY source and FILL available for DSK •Ten basic and eight matrix wipe patterns with modifiers •Fully adjustable internal BOX MASK and EXT MASK inputs •Three COLOUR MATTE GENERATOR for BACKGROUND, EFF/ BORDER, and DSK •CHROMAKEYER (RGB or Y/R-Y/B-Y selectable) •DSK with BORDER, DROP SHADOW, OUTLINE (2H/ 4H) selectable FADE to BLACK (FTB) function •Auto Transition for M/E, DSK, and FTB •RS-422A interface •Communication of E-File and initial panel information with BVE-910/9000/9100 •DME-450P interface •Four Black Burst Outputs •GPI Input port for M/E, DSK, FTB, and SELECT •Two PGM Outputs and one PVW Output

| | |
|---|---|
| Supplied accessories: | AC power cord<br>Control panel cable (5m)<br>Extension board<br>Operation and maintenance manual |
| Optional accessories: | SWC-2530D Control panel cable (30m)<br>RMM-3000 Rack mount kit |

### Specifications

| | |
|---|---|
| Power requirements: | AC 100V to 240V ±10%, 50/60Hz ±10% |
| Power consumption: | 125W |
| Operating temperature: | 0° to 40°C (32° to 104°F) |
| Storage temperature: | –20° to 60°C (–4° to 140°F) |
| Dimensions: | |
| Control panel: | Approx. 424 (W) × 111 (H) × 440 (D) mm<br>(16¾ × 4⅜ × 17⅜ inches) |
| Processor unit: | Approx. 424 (W) × 132 (H) × 350 (D) mm<br>(16¾ × 5¼ × 15¾ inches) |
| Mass: | |
| Control panel: | Approx. 4.4 kg (9 lb 11 oz) |
| Processor unit: | Approx. 13 kg (28 lb 11 oz) |

*For further information, please contact the nearest Sony office.

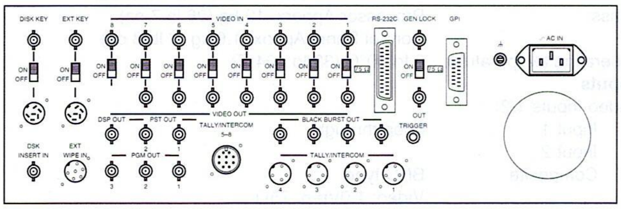
## SEG-2550AP

**E-File**

### Colour special effects generator

•The SEG-2550AP is a compact and cost effective special effects generator for program production and post production •The E-File function, which memorizes and reproduces the setting of switches and buttons and the movement of the controls, levers and sticks, is adopted •Interface capability with the BVE-900/910 automatic editing control unit and an external computer •A total of 137 versatile wipe patterns •Wipe pattern modifiers such as the positioner, the border wipe, softness border edge, echo/pairing wipe, and mosaic wipe are provided •8 video inputs and 4 bus lines (A, B, PGM and PST) for special effects (MIX, WIPE, and EXTERNAL KEY) •Built-in background colour •Built-in downstream keyer (DSK) •Independent colour generation for DSK •Shadow and edge adjustment for the key signal •Built-in sync generator •4 black burst signal outputs for synchronization of video equipment •SC and H phase indicators for easy phase adjustment •19-inch rack mountable •Torque adjustment of the effects levers

| | |
|---|---|
| Supplied accessories: | AC power cord<br>Wipe pattern list<br>CCJ connector for tally/intercom<br>Designation label<br>D-sub (15-pin) connector<br>Transparent Designation Chips<br>White Seal |



### Specifications

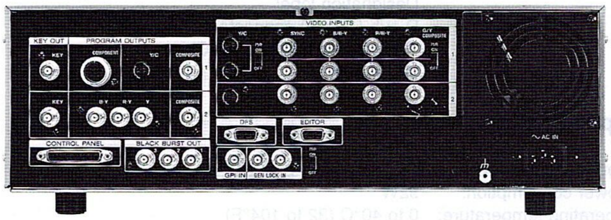
| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 92W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Dimensions: | Approx. 481 (W) × 155.5 (H) × 310.4 (D) mm<br>(19 × 6⅛ × 12¼ inches) |
| Mass: | Approx. 14.5 kg (31 lb 15 oz) |
| Video signal system: | PAL |
| Switching system: | Vertical blanking switcher |
| Effects: | MIX<br>Mixing by PGM/PST MIX lever and the EFF lever<br>WIPE<br>137 wipe patterns (selectable)<br>Wipe edge: The softness is continuously variable<br>Border: Hue, chroma, luminance and width are continuously variable<br>Pairing: Scanning lines 2 lines/3 lines/4 lines (selectable)<br>Echo: Possible<br>EXT KEY<br>Output signal (DIN, 6-pin)<br>HD, VD, 4Vp-p, 75Ω, unbalanced<br>Input signal (BNC type and DIN, 6-pin)<br>0.7Vp-p (video), 1Vp-p (VS), 75Ω, unbalanced with 75Ω termination switch<br>EXT KEY connector (BNC type and DIN, 6-pin) with 75Ω termination switch<br>Slicer circuit is included (Clip level is variable)<br>DOWNSTREAM KEYER<br>Output signal (DIN, 6-pin)<br>HD, VD, 4Vp-p, 75Ω, unbalanced<br>Input signal (BNC type and DIN, 6-pin)<br>0.7Vp-p (video), 1Vp-p (VS), 75Ω, unbalanced<br>DSK KEY connector: (BNC type and DIN, 6-pin) with 75Ω termination switch<br>Shadow: Wide and narrow (selectable)<br>Edge: Variable<br>Colour matte: Continuously variable<br>Chroma: Approx. 0 to 700mVp-p (variable according to the hue level)<br>Hue: 0 to 360°<br>Luminance (Y): Approx. 50 to 700mV continuously variable<br>BACKGROUND COLOUR<br>Chroma: Approx. 0 to 700mVp-p (variable according to the hue level)<br>Hue: 0 to 360°<br>Luminance (Y): Approx. 50 to 700mV continuously variable |
| Input signal: | VIDEO IN 1 to 8 connectors (BNC type) × 8<br>0.7Vp-p (VB) or 1Vp-p (VBS), 75Ω, unbalanced with 75Ω termination switches<br>(The INDICATION selector does not function with the VB input signal.)<br>GENLOCK IN connector (BNC type) × 1<br>0.3V/0.3V (BS) or 1Vp-p (VBS), with 75Ω termination switch<br>DSK INSERT IN connector (BNC type) × 1<br>1Vp-p (VS)<br>EXT WIPE IN connector (DIN, 6-pin) × 1 |
| Output signal: | VIDEO OUT 1 to 8 connector (BNC type) × 8<br>1Vp-p (VBS), 75Ω, unbalanced (loop-through output of the corresponding VIDEO IN connector)<br>PGM OUT 1 to 3 connector (BNC type) × 3<br>1Vp-p (VBS), 75Ω, unbalanced<br>PST OUT 1 to 2 connector (BNC type) × 2<br>1Vp-p (VBS), 75Ω, unbalanced<br>GENLOCK OUT connector (BNC type) × 1<br>(loop-through output of GENLOCK IN connector)<br>DSP OUT connector (BNC type) × 1<br>1Vp-p (VS), 75Ω, unbalanced<br>BLACK BURST OUT 1 to 4 connector (BNC type) × 4<br>0.3V/0.3Vp-p (BS), 75Ω, unbalanced |
| Tally/Intercom: | TALLY/INTERCOM 1 to 4 connector (DIN, 4-pin) × 4<br>TALLY/INTERCOM 5 to 8 connector (CCJ, 10-pin) × 1<br>Maximum pick-up value in a relay: 24V 200mA DC |
| Trigger: | TRIGGER (Special minijack) × 1<br>TAKE function by earth<br>(OPEN: +5V, impedance 65kΩ) |
| GPI: | GPI (D-sub, 15-pin) × 1<br>TAKE function, PGM DSK Cut-in/out by earth<br>OPEN; ±5V, impedance 65kΩ) |
| RS-232C: | 9600 baud (fixed), DTE (terminal),<br>Signal level ±9V |
| DG: | Less than 1% |
| DP: | Less than 1° |
| Crosstalk: | Over –50dB |
| Frequency response: | 8MHz ±0.5dB |
| S/N ratio: | Over –60dB |

# DCK-500P

## Digital Chromakeyer

•8-bit Digital processiong for High Picture Quality •Auto-Chromakey •Manual Key Control Including Colour Cancel •Digital Coluor Correction •Multiple Format Inputs and Outputs •Snapshot Control from Editing Controller •Two Frame Synchronizers

SONY
DIGITAL CHROMAKEYER DCK-500
SONY
DIGITAL CHROMAKEYER DCK-500



| | |
|---|---|
| Supplied accessories: | AC power cable<br>Operation manual |
| Optional accessories: | Control panel adopter BKDC-501 |

## Specifications

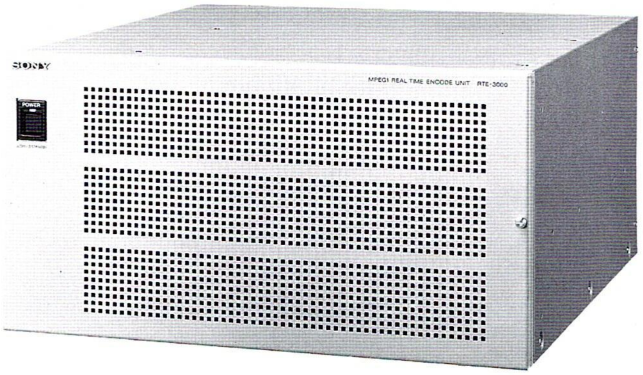
| | |
|---|---|
| **General** | |
| Power requirement: | AC 220/240V, 50/60Hz |
| Operating voltage: | AC 180 to 264V, 48 to 63Hz |
| Power consumption: | 65W |
| Dimensions: | Processor 424 (W) × 132 (H) × 450 (D) mm<br>($16\frac{3}{4} \times 5\frac{1}{4} \times 17\frac{3}{4}$ inches)<br>Control Panel 325 (W) × 52 (H) × 132 (D) mm<br>($12\frac{7}{8} \times 2\frac{1}{8} \times 5\frac{1}{4}$ inches) |
| Mass: | Processor Apporx. 12 kg (26 lb 7 oz)<br>Control Panel Appox. 1.6 kg (3 lb 8 oz) |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| **Inputs** | |
| Video Inputs 1/2: | |
| Input 1 | Loop through |
| Input 2 | |
| Composite | BNC type<br>Video: 1.0Vp-p, 75Ω<br>Sync: 0.3Vp-p<br>Burst: 0.3Vp-p |
| Y/C (S-video) | DIN 4-pin<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω, burst |
| Component (Betacame) | BNC type<br>Y: 1.0Vp-p, 75Ω<br>R-Y/B-Y: 0.525Vp-p, 75Ω, 100/0/75/0 |
| Component RGB | BNC type<br>RGB: 0.7Vp-p, 75Ω<br>Sync: 0.3 to 4.0Vp-p, 75Ω |
| GENLOCK IN | BNC type, Loop-through<br>Video: 1.0Vp-p, 75Ω<br>Sync: 0.3Vp-p<br>Burst: 0.3Vp-p |
| **Outputs** | |
| PGM OUT 1/2 | |
| Composite | BNC type<br>Video: 1.0Vp-p, 75Ω<br>Sync: 0.3Vp-p<br>Burst: 0.3Vp-p |
| Y/C (S-video)* | DIN 4-pin<br>Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω, burst |
| Component | 12-pin (for OUTPUT 1), BNC type (for OUTPUT 2)<br>Y: 1.0Vp-p, 75Ω<br>R-Y/B-Y: 0.525Vp-p, 75Ω, 100/0/100/0 |
| KEY OUT 1/2: | BNC tpye<br>1.0Vp-p, 75Ω, without sync |
| BLACK BURST OUT 1/2/3: | BNC type<br>Sync: 0.3Vp-p, 75Ω, burst<br>Burst: 0.3Vp-p, 75Ω, burst |
| **Interface** | |
| Editor: | D-sub 9-pin, conforming to RS-422A |
| GPI: | BNC type, TTL level |
| Control panel: | D-sub 25-pin, conforming to RS-422A |
| DFS: | D-sub 9-pin, comforting to RS-422A |
| **Signal Processing** | |
| Sampling Frequency: | Y: 908fH (fH: 15.625kHz)<br>R-Y/B-Y: 1/2 × 908fH |
| Quantization: | Y/R-Y/B: 8 bits |
| Linearity (Composite output): | DP: Less than 2.5° - Composite input<br>Less than 1.0° - Y/C, Component input<br>DG: Less than 3.5% - Composite input<br>Less than 2.0% - Y/C, Component input |
| Crosstalk: | Less than -50dB |
| Frequency response: | 0 to 5MHz +0.5dB/-1dB |
| Signal to noise raito: | More than 51dB - Composite<br>More than 55dB - Y/C, Component |
| Y/C delay: | Less than 20ns - Component<br>Less than 50ns - Y/C, Composite |

*OUTPUT 1 only

# SECTION 4 MPEG-1 Real Time Encode Unit

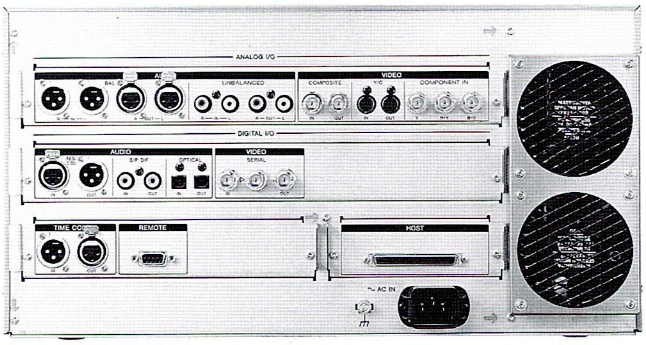
RTE-3000E........................................................122

# RTE-3000E
## MPEG-1 Real Time Encode Unit



•Original Sony encode and motion estimation controller LSI incorporated for high quality picture encoding •Sony adaptive bit rate control encoding technology incorporated to assure appropriate encoding for each scene •Automatic scene change detection incorporated to smoothly and accurately encode scene transitions •Capable of encoding high resolution still images •Capable of directly encoding signals from personal computers •Built-in Sony decoding circuitry to enable decoded signals to be monitored while encoding •RS-422 port available for VTR control •Simultaneous video/audio multiplexing

| | |
|---|---|
| Supplied accessories | ISA interface card and cable |
| Required software | Windows compatible RTS-3000 Encoder control software |
| Optional accessories | RTP-3000 Digital input/output board<br>RTP-3100 Image processor board |
| Optional software | RTS-3200E Video CD authoring software |



## Specification
**General**

| | |
|---|---|
| Power requirement | 220 to 240 VAC, 45 to 65Hz |
| Power consumption | 300W (encoder) |
| Operating temperature | 5 to 35°C (41 to 95°F) |
| Dimensions | 424 (W) × 231.6 (H) × 478 (D)mm<br>(16¾ × 9⅛ × 18⅞ inches) |
| Mass | 20 kg (44 lbs. 15 oz) |

**Video**

| | |
|---|---|
| Video format | MPEG-1 Video (ISO11172-2) |
| Video bit rate | Adjustable from 1 to 7Mbits/sec. |
| Picture size at SIF resolution | 352 × 240 × 30 (NTSC)<br>352 × 288 × 25 (PAL)<br>352 × 240 × 24 (Film) |
| Video inputs/outputs | S-video<br>Composite<br>Component (Y/R-Y/B-Y) input only<br>Component SDI (option) |

**Audio**

| | |
|---|---|
| Audio format | MPEG-1 Audio ISO11172-3 layer 1 and layer 2 (mono, stereo, joint stereo, dual) |
| Audio bit rate | 32 to 384Kbits/sec. |
| Stereo inputs/outputs | Balanced XLR<br>Unbalanced phono<br>AES/EBU digital (option)<br>S/P DIF (option)<br>Optical (option) |

Host computer minimum requirements

100MHz Intel 80486 DX4 microprocessor or faster; 3MB free hard disk space for application; fast SCSI-2 AV Hard Drive (strongly recommended); Super VGA graphics with 1024 x 768 resolution and 256 colours for control software display; Microsoft Windows 3.1, 3.11 or Windows 95 operating system*

*These specifications should be used as a guideline for integrating a system which can be used to encode low bit rate MPEG-1 streams (1 to 3Mbits/sec.). The performance of your system may vary depending upon your selection of graphics cards, hard drive, and hard drive interface card selection.

# SECTION 5 VIDEO FILE SERVER SYSTEM

**1. Multichannel video file server system**
1-1. BitStream™
VST-1000AP ........................................................124
1-2. VideoStore™
VSR-1000........................................................125
VSH-1000........................................................126

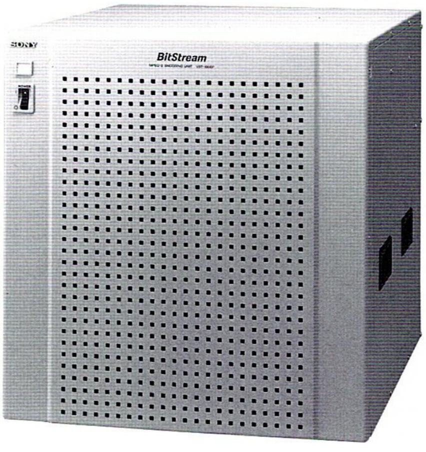
**2. Multichannel video file server system accessories** ........................................127

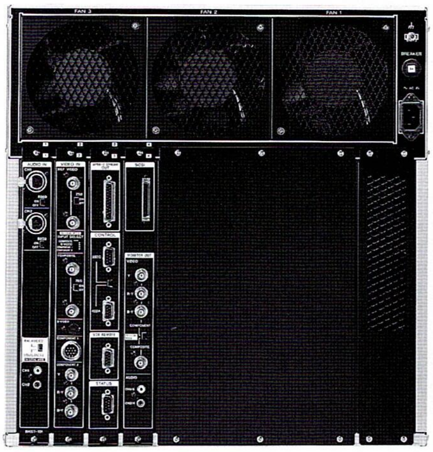
# 1-1. BitStream

## VST-1000AP

### MPEG-2 Encoding unit

•5Mbps or 10Mbps MPEG-2 Main Profile @ Main Level 4:2:0 Real Time Encoding •Processes full-bandwidth analog video input in either component, composite, or S-Video formats (BKST-106P) •SDI input option with BKST-103 SDI Input Board •Two channel (BKST-101) or four channel (BKST-102) audio input board is available with balanced/unbalanced connectors •Built-in decoder board with component or composite video outputs and four channel audio monitoring for encoder monitoring •Optional Motion Estimation Expansion Board (BKST-105) provides 200% expansion of the motions detection area for further improvement of image quality •Embeds clip ID number into MPEG-2 bit stream for playout verification •Application control through either RS-422A or RS-232C •Built-in RS-422A VTR machine control •Predictive Maintenance fault tolerance





| | | |
|---|---|---|
| Supplied accessories: | Terminator for SCSI interface (×1) | |
| | MPEG-2 Stream Cable (×1, length: 5m) | |
| | Rack Mount Bracket for 5U (× 4) | |
| Optional accessories: | BKST-101 | Two Channel Audio Input Board |
| | BKST-102 | Four Channel Audio Input Board |
| | BKST-103 | SDI Input Board |
| | BKST-105 | ME Expansion Board |
| | BKST-106P | Analig Video Input Board |
| | RMM-18DV | Rack Mount Rail |
| | SDX-VS300 | AIT Drive Unit |
| | SDX-T3N | AIT Data Cartridge |

## Specifications

**General**

| | |
|---|---|
| Power Requirements: | AC 100 to 240V, 50/60 Hz |
| Power Consumption: | Approx. 350W |
| Operating Temperature: | 10 to 35°C (50 to 95°F) |
| Storage Temperature: | –20 to 55°C (–4 to 131°F) |
| Operating Humidity: | 30 to 70% |
| Storage Humidity: | 20 to 75% |
| Dimensions: | 424 (W) ×443 (H) ×480 (D) mm<br>(16 ¾ ×17 ½ ×19 inches) |
| Mass: | Approx. 26.6 kg (58 lb 10 oz)<br>Approx. 28.6 kg (63 lb 2 oz) - Fully optioned |

**Video Inputs** (with optional BKST-103 or BKST-106P)

| | |
|---|---|
| < BKST-103 SDI Input Board > | |
| DIGITAL IN: | BNC (×1), 10bit 4:2:2 component serial digital video signal |
| ANALOG IN | COMPONENT BNC (×3) |
| Y: | 1.0 Vp-p, 75Ω, sync negative |
| R-Y: | 0.7 Vp-p, 75Ω |
| B-Y: | 0.7 Vp-p, 75Ω |
| REFERENCE VIDEO IN: | BNC (×2, One for loop-through)<br>1.0 Vp-p, 75Ω (ON/OFF swtichable), sync negative |
| < BKST-106P Analog Video Input Board > | |
| COMPOSITE IN: | BNC (×2, One for loop-through)<br>1.0Vp-p, 75Ω (ON/OFF switchable), sync negative |
| COMPONENT 1 IN: | Circular 12-pin (×1) |
| Y: | 1.0 Vp-p, 75Ω, sync negative |
| R-Y: | 0.7 Vp-p, 75Ω |
| B-Y: | 0.7 Vp-p, 75Ω |
| COMPONENT 2 IN: | BNC (×3) |
| Y: | 1.0 Vp-p, 75Ω, sync negative |
| R-Y: | 0.7 Vp-p, 75Ω |
| B-Y: | 0.7 Vp-p, 75Ω |
| S-video (Y/C) IN: | DIN 4-pin S-terminal |
| Y: | 1.0 Vp-p, 75Ω, sync negative |
| C: | 0.3 Vp-p, 75Ω at burst |
| REFERENCE VIDEO IN: | BNC (×2, One for loop-through)<br>1.0 Vp-p, 75Ω (ON/OFF switchable), sync negative |

**Audio Inputs** (with optional BKST-101 or BKST-102)

| | |
|---|---|
| < BKST-101 Two Channel Audio Input Board > | |
| BALANCED: | XLR-3 type (×2, for 2 channels), +4dBu, 600Ω or 10kΩ (selectable) |
| UNBALANCED: | Phono (×2, for 2 channels), –10dBu, 47kΩ |
| < BKST-102 Four Channel Audio Input Board > | |
| BALANCED: | XLR-3 type (×4, for 4 channels) +4dBu, 600Ω or 10kΩ (selectable) |
| UNBALANCED: | Phono (×4, for 4 channels), –10dBu, 47kΩ |

**Video Monitor Outputs**

| | |
|---|---|
| COMPOSITE OUT: | BNC (×1), 1.0Vp-p, 75Ω, sync negative |
| COMPONENT OUT: | BNC (×3)<br>Y: 1. 0Vp-p, 75Ω, sync negative<br>R-Y: 0.7Vp-p, 75Ω<br>B-Y: 0.7Vp-p, 75Ω |

**Audio Monitor Outputs**

| | |
|---|---|
| UNBALANCED OUT: | Phono (×2, for 2 channels), –5dBu, 47kΩ |
| HEADPHONE OUT: | Stereo Phone (×1) –14dBu (with volume control), 8Ω |

**Interface**

| | |
|---|---|
| MPEG-2 STREAM OUT: | D-sub 25-pin, RS-422A |
| CONTROL 232C: | D-sub 9-pin, RS-232C |
| CONTROL 422A: | D-sub 9-pin, RS-422A |
| VTR REMOTE: | D-sub 9-pin, RS-422A |
| STATUS: | D-sub 9-pin, RS-232C |
| SCSI: | SCSI-2 (Half-pitch) |

**Signal Processing**

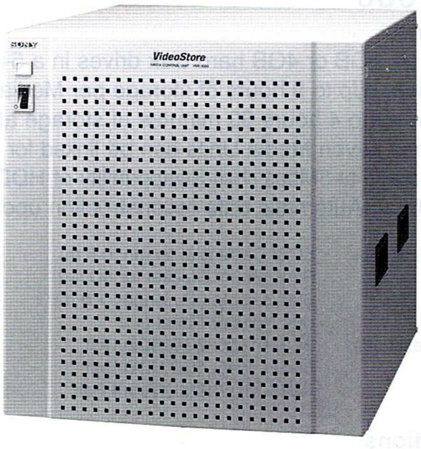
| | |
|---|---|
| VIDEO Encoding | |
| Video Coding: | MPEG-2 MP@ML SYNTAX |
| Source Format: | CCIR REC601, 720 pixels ×576 lines |
| MPEG-2 Coding Algorithm | |
| Frame Structure Fix: | Frame/Field MC. DCT adaptive |
| Motion Vector Range: | Horizontal:<br>Max. 48 pixels<br>Max. 96 pixels<br>- with the optional BKST-105<br>Vertical:<br>Max. 32 lines<br>Max. 48 lines<br>- with the optional BKST-105 |
| AUDIO Encoding | |
| Audio Coding: | MPEG AUDIO LAYER 1/2 |
| Sampling Frequency: | 48 kHz |
| Bit Rate: | Stereo 256 kbps |
| Mode: | Stereo |
| Audio/Video Bit Rate: | 5.0Mbps/10Mbps, selectable |

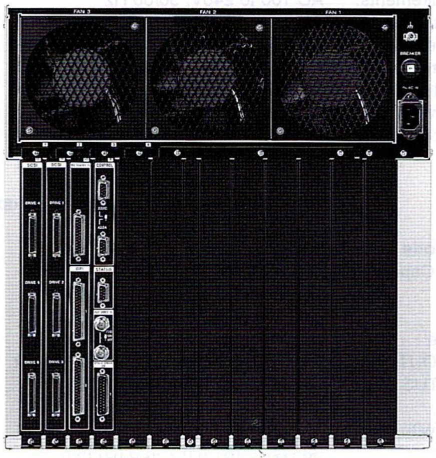
| | |
|---|---|
| **Safety Regulations** | EN 60950, UL-1950, CSA C22.2 No.950 |
| **EMC Regulations** | EN 55022 Class B, FCC Class A |

## VSR-1000

### Media Control Unit

•Supports storage and multichannel playback of either 5Mbps or 10Mbps MPEG-2 Main Profile @ Main Level •Maximum of 12 (data rate of 5 Mbps) or 6 (data rate of 10 Mbps) channel simultaneous playback capability •Quick random access •Back to back playback without black •Maximum of seven VSH-1000 Media Units can be connected to one VSR-1000 •Fault Tolerant Architecture (Sony Predictive Maintenance™, Hot-Swapability, Non-Disruptive Faulting, etc.) •Versatile Clip Distribution with Clip Exchange Board (BKSR-103) and Ethernet Interface Board (BKSR-105) •Dedicated RS-232C port for diagnosis •Operation can also be triggered via a general purpose interface (GPI)





| | | |
|---|---|---|
| Supplied accessories: | 75Ω terminator for SCSI interface (× 6) | |
| | Rack Mount Bracket for 5U (× 4) | |
| Optional accessories: | BKSR-101P | One Channel Decoder Board |
| | BKSR-102 | Two Channel Decoder Board |
| | BKSR-103 | Clip Exchange Board |
| | BKSR-104 | Power Unit |
| | BKSR-105 | Ethernet Internet Board |
| | BKST-106P | Analig Video Input Board |
| | RMM-18DV | Rack Mount Rail |
| | SDX-VS300 | AIT Drive Unit |
| | SDX-T3N | AIT Data Cartridge |

### Specifications

**General**

| | |
|---|---|
| Power Requirements: | AC100 to 240V, 50/60Hz |
| Power Consumption: | Approx. 350W |
| Operating Temperature: | 10 to 35°C (50 to 95°F) |
| Storage Temperature: | –20 to 55°C (–4 to 131°F) |
| Operating Humidity: | 30 to 70% |
| Storage Humidity: | 20 to 75% |
| Dimensions: | 424 (W) × 443 (H) × 480 (D) mm<br>(16 ¾ × 17 ½ × 19 inches) |
| Mass: | Approx. 22.8 kg (49 lb 9 oz)<br>Approx. 35.0 kg (77 lb 3 oz) - Fully optioned |

**Inputs**

| | |
|---|---|
| REFERENCE VIDEO IN: | BNC (× 2, One for loop-through), 1.0Vp-p, 75Ω |
| MPEG-2 STREAM IN: | D-sub 25-pin, RS-422A |

**Outputs**

<BKSR-101P One Channel Decoder Board>

| | |
|---|---|
| Bit Rate: | 5.0Mbps/10.0Mbps |
| Number of Channel: | 1 channel<br>(Up to 6 boards can be installed in the VSR-1000) |
| Video Outputs | |
| COMPOSITE 1/2/3: | Composite (PAL), BNC (×3 per 1 channel),<br>1.0Vp-p, 75Ω |
| COMPONENT: | BNC (×3)<br>Y: 1.0Vp-p<br>R-Y: 0.7Vp-p<br>B-Y: 0.7Vp-p |
| Audio Outputs | |
| AUDIO 1/2/3/4: | XLR type (×1 per 1 channel), stereo,<br>+4dBu, 600kΩ, balanced |

<BKSR-102 Two Channel Decoder Board>

| | |
|---|---|
| Bit Rate: | 5.0Mbps |
| Number of Channel: | 2 channels<br>(Up to 6 boards can be installed in the VSR-1000) |
| Video Outputs | |
| COMPOSITE 1/2: | Composite (PAL), BNC (×2 per 1 channel),<br>1.0Vp-p, 75Ω |
| SYNC IN: | BNC (×1 per 1 channel), 1.0Vp-p, 75Ω |
| COMPONENT: | BNC (×3)<br>Y: 1.0Vp-p<br>R-Y: 0.7Vp-p<br>B-Y: 0.7Vp-p |
| Audio Outputs | |
| AUDIO 1/2: | XLR type (×1 per 1 channel), stereo,<br>+4dBu, 600kΩ, balanced |

<BKSR-106 SDI Output Board>

| | |
|---|---|
| Bit Rate: | 5.0Mbps/10.0Mbps |
| Number of Channel: | 1 channel<br>(Up to 6 boards can be installed in the VSR-1000) |
| Digital Out | |
| SDI: | SMPTE Serial digital interface format (270Mbps)<br>BNC (×2 per 1 channel), |
| Video Monitor Out | |
| COMPOSITE: | Composite (PAL), BNC (×1),<br>1.0Vp-p, 75Ω |
| Audio Monitor Out | |
| AUDIO 1/2/3/4: | XLR type (×1 per 1 channel), stereo,<br>+4dBu, 600kΩ, balanced |

**Interface**

| | |
|---|---|
| MU Interface | |
| SCSI: | SCSI (Half-pitch, date transfer only) |
| MU STATUS: | D-sub 25-pin, Parallel I/O |
| Host Interface | |
| CONTROL 232C: | D-sub 9-pin, RS-232C |
| CONTROL 422A: | D-sub 9-pin, RS-422A |
| GPI 1/2: | D-sub 37-pin (×2) |
| STATUS | D-sub 9-pin, RS-232C |
| Clip Exchange (with the optional BKSR-103) | |
| MPEG-2 STREAM IN 2: | D-sub 25-pin, Parallel, RS-422A |
| MPEG-2 STREAM IN 3: | D-sub 25-pin, Parallel, RS-422A |
| MPEG-2 STREAM OUT: | D-sub 25-pin, Parallel, RS-422A |
| STREAMER: | SCSI-2 (Half-pitch) |

**Audio/Video Performance**

| | |
|---|---|
| Video | |
| Video Data: | MPEG-2 Encoded Data (ML@MP), 4.0Mbps/9.0Mbps |
| Resolution: | 720 × 576 × 25Hz |
| Signal-to-Noise Ratio: | More than 46dB |
| Audio | |
| Audio Data: | MPEG-1 Layer 2, 256kbps |
| Sampling Frequency: | 48kHz |
| Quantization: | 16 bits, linear |
| Signal-to Noise Ratio: | More than 80dB |
| Audio Video Bit Rate: | 5.0Mbps/10.0Mbps |

**Search Performance**

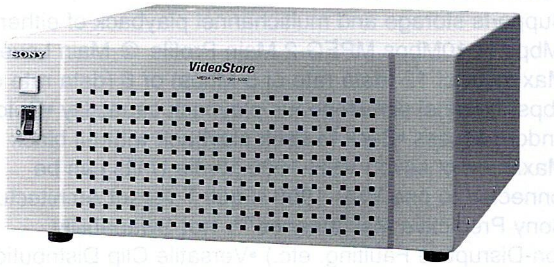
| | |
|---|---|
| Clip Access Time: | Less than 4.0s |

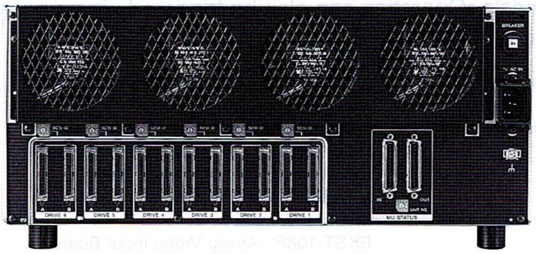
| | |
|---|---|
| **Safety Regulations** | EN 60950, UL-1950, CSA C22.2 No.950 |
| **EMC Regulations** | EN 55022 Class B, FCC Class A, IC Class A |

## VSH-1000

### Media Unit

•Contains six 2GB or 4GB hard disk drives in a 5+1 RAID-3 configuration. •Up to 9 hours of storage per Media Unit at 5Mbps and up to 4 hours 30 minutes of storage at 10Mbps •Maximum of seven Media Units can be linked for over 30 hours of storage at 5Mbps •Hot-Swappability of HDDs, power units and fans •Automatic data reconstruction upon hot-swap





| | |
|---|---|
| Supplied accessories: | SCSI Cable (×6, length: 0.6 m)<br>Rack Mount Bracket for 4U (×2)<br>Status cable (×1, length: 1.0 m)<br>Unit Number Sheet (×1) |
| Optional accessories: | BKSH-102G 2GB HDD Unit<br>BKSH-104G 4GB HDD Unit<br>RMM-18DV Rack Mount Rail |

### Specifications

**General**

| | |
|---|---|
| Power Requirements: | AC 100 to 240V, 50/60 Hz |
| Power Consumption: | Approx. 160W |
| Operating Temperature: | 10 to 35°C (50 to 95°F) |
| Storage Temperature: | –20 to 55°C (–4 to 131°F) |
| Operating Humidity: | 30 to 70% |
| Storage Humidity: | 20 to 75% |
| Dimensions: | 424 (W) × 177 (H) × 500 (D) mm<br>(16 ¾ × 7 × 19 ¾ inches) |
| Mass: | Approx. 16.2 kg (35 lb 11 oz)<br>Approx. 27.6 kg (60 lb 13 oz) - Fully optioned |

**Configurations**

| | |
|---|---|
| HDD Install Capacity: | 6 |

**Interface**

MU Interface

| | |
|---|---|
| SCSI IN/OUT: | SCSI-2 (Half-pitch × 6), 8 bits, 5 MHz |
| MU STATUS IN/OUT: | D-sub 25-pin (×1), Parallel I/O |

**Hard Disk** (with BKSH-102G or BKSH-104G)

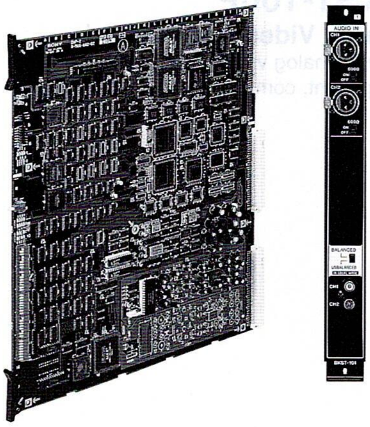
| | |
|---|---|
| Dimensions: | 38 (W) × 161 (H) × 423 (D) mm<br>(1 ½ × 6 ⅜ × 16 ¾ inches) |
| Mass: | Approx. 1.9 kg (4 lb 3 oz) |
| Programme Recording Time (at 5Mbps): | 4 hours 20 minutes-with 6 BKSH-102Gs<br>9 hours-with 6 BKSH-104Gs |
| **Safety Regulations** | EN 60950, UL-1950, CSA C22.2 No.950 |
| **EMC Regulations** | EN 55022 Class B, FCC Class A, IC Class A |

# 2. Multichannel video file server system accessories

## BKST-101

### Two Channel Audio Input Board

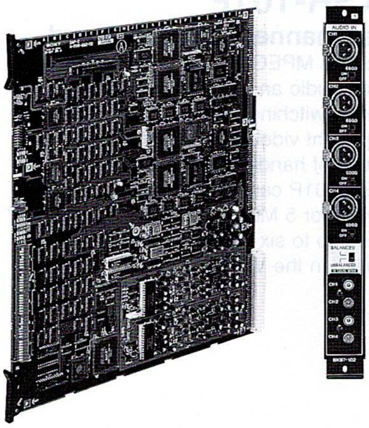
•Enables 2-channel audio input to VST-1000AP •Balanced and unbalanced AUDIO IN connectors are provided



## BKST-102

### Four Channel Audio Input Board

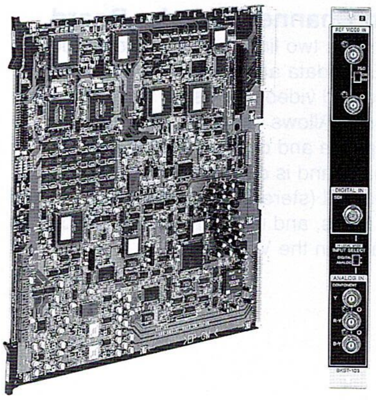
•Enables 4-channel audio input to VST-1000AP •Balanced and unbalanced AUDIO IN connectors are provided



## BKST-103

### SDI Input Board

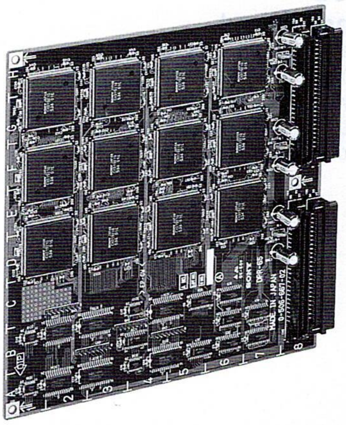
•Enables 1-channel SDI or Component input to VST-1000AP •REFERENCE VIDEO IN connectors are provided



## BKST-105

### ME Expansion Board

•Provides 200% expansion of the motion detection area of VST-1000AP •Improves motions interpolation performance, providing outstanding picture quality, particularly when encoding video sequences with fast horizontal movements

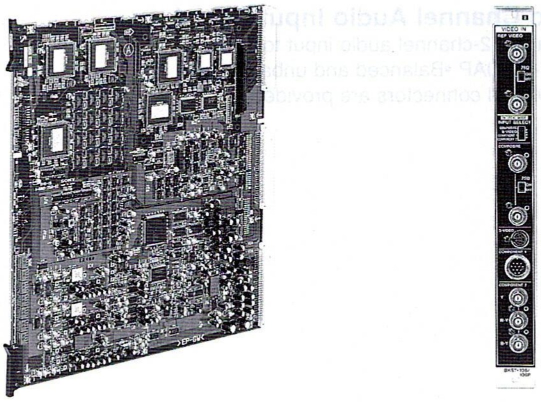


# 2. Multichannel video file server system accessories

## BKST-106P

### Analog Video Input Board

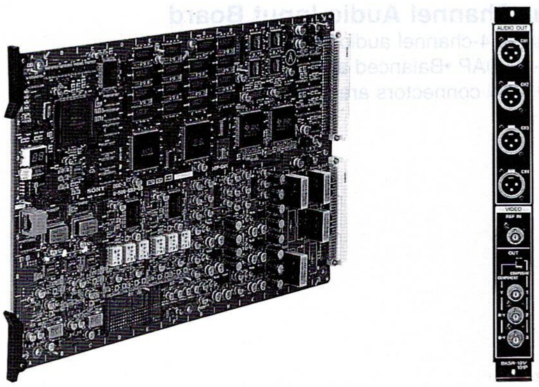
•Allows analog video input in either component, composite, or S-video formats



## BKSR-101P

### One Channel Decoder Board

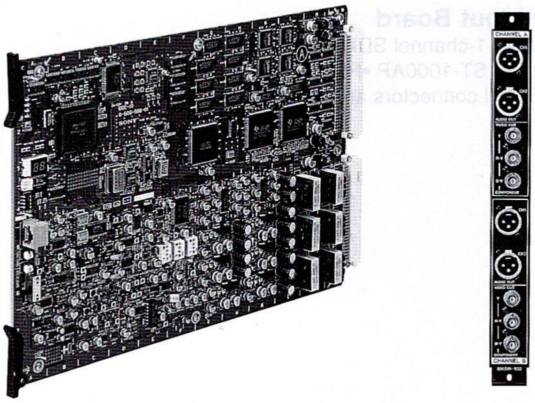
•Decodes MPEG-2 data and converts it to analog audio and video signals for output •Allows switching between composite and component video signal formats, and is capable of handling 4-channel audio •BKSR-101P can operate at a data rate of 10 Mbps or 5 Mbps, and in gen-locked mode •Up to six BKSR-101P can be installed in the VSR-1000



## BKSR-102

### Two Channel Decoder Board

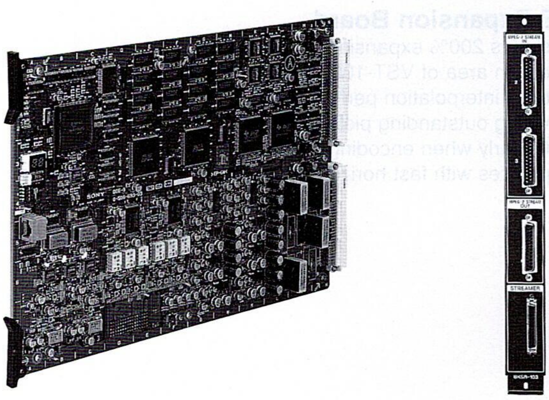
•Contains two lines of circuits to decode MPEG-2 data and converts it to analog audio and video signals for two channels outputs •Allows switching between composite and component video signal formats, and is capable of handling 2-channel (stereo) audio •Data rate is fixed at 5 Mbps, and up to six BKSR-102 can be installed in the VSR-1000



## BKSR-103

### Clip Exchange Board

•Enables exchanging video clips among multiple VSR-1000 •Enables input MPEG-2 bit streams from two VST-1000P units to the VSR-1000 simultaneously •Able to upload and download clips via a data streamer SDX-VS300

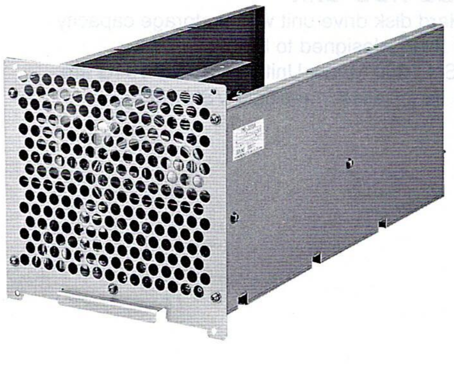


# 2. Multichannel video file server system accessories

## BKSR-104

### Power Unit

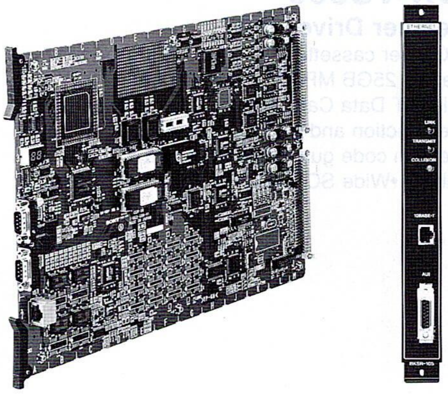
•Doubles the power supply of the VSR-1000 to assure uninterrupted operation should one of the supplies break down



## BKSR-105

### Ethernet Interface Board

•Conforms to 10 BASE-T or AUI (IEEE 802.3) and supports the FTP (File Transfer Protocol) •Allows clips to be transferred via an Ethernet network



## BKSR-106

### SDI Output Board

•Decodes MPEG-2 data and converts it to SDI signal for output •1-channel composite monitor out is provided •BKSR-106 can operate at a data rate of 10Mbps or 5Mbps •Up to six BKSR-106 can be installed in the VSR-1000

## BKSH-102G

### 2GB HDD Unit

•BKSH-102G is a hard disk drive unit with a storage capacity of 2 GB, designed to be used in the VSH-1000 Media Unit •Six BKSH-102Gs are to be installed in a single VSH-1000

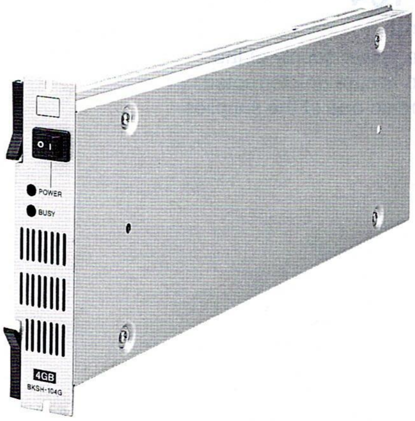
POWER
BUSY
BKSH-102G

# 2. Multichannel video file server system accessories

## BKSH-104G

### 4GB HDD Unit

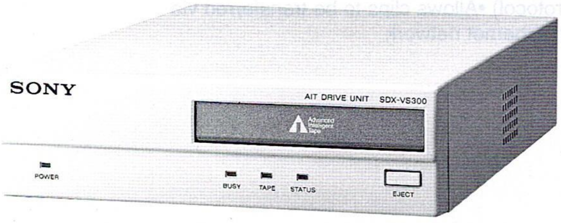
•Hard disk drive unit with a storage capacity of 2 GB, designed to be used in the VSH-1000 Media Unit •Six BKSH-104G are to be installed in a single VSH-1000


POWER
BUSY
4GB
BKSH-104G

## SDX-VS300

### Streamer Drive Unit

•25 GB per cassette •8mm cassette size •Enables 25GB MPEG-2 data recorde to a single AIT Data Cartridge •A 'Read after Write' function and three-level error correction code guarantee high data reliability •Wide SCSI interface


SONY
AIT DRIVE UNIT SDX-VS300
Advanced Intelligent Tape
POWER
BUSY
TAPE
STATUS
EJECT

## SDX-T3N

### AIT Data Cartridge

•25 GB per cassette •8mm cassette size

SDX-T3N
COMPUTER GRADE
DATA CARTRIDGE
CARTOUCHE DE DONNEES
Native Capacity 25 GB
170 m / 557 feet
Advanced Metal Evaporated
SONY
Advanced Intelligent Tape
SONY
SDX-T3N
Advanced Intelligent Tape

## BZSR-100

### VideoStore Playout Software

•Transmits six different playlist to six output channels simultaneously •Consists of four software modules: ENCODING CONTROL for encoding video clips from an external VTR or live source into an MPEG-2 data stream, PLAYOUT CONTROL for playing out clips for up to six channels, PLAYOUT MONITORING for monitoring the status of each playout channel and OFF-LINE PLAYLIST CREATION for creating playlist off line

# 2. Multichannel video file server system accessories

## BZSR-210

### VST Control Software for Web Server

•Controls VST-1000AP for encoding and loading video clips •Transmits video clips from VSR-1000 to the other VSR-1000 via WAN

## BZSR-220

### VSR Control Software for Web Server

•Allows VideoStore control by multiple computers via an Internet home page •Play, stop, repeat play of video clips can be controlled by multiple computers

## BZSR-230

### Technical Reference

•Enables software developer design client software for BZSR-220 VSR Control Software for Web Server •Describes the software operating environment, followed by browser settings and HTML implementations

VIDEO FILE SERVER SYSTEM

# SECTION 6 DISPLAY PRODUCTS

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## 3. Other

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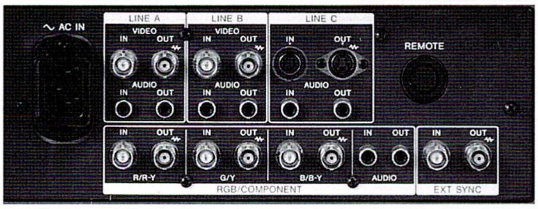
## 20" PVM-20M4E/20M4A*1 (PAL/NTSC/SECAM/$\text{NTSC}_{4.43}$)

### Colour Video Monitor

•HR Trinitron CRT assures a high resolution of 800TV lines •Adopts EBU standard phosphor •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/ 102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/ operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*2 •Accepts external sync •Auto/Manual degaussing •Minimizes magnetic field emission •Mountable into an EIA standard rack with the optional SLR-103A

| | |
|---|---|
| Supplied accessories: | 20-pin remote cable<br>Tally label<br>AC cord<br>AC plug holder<br>Operation manual |
| Optional accessories: | BKM-101C (Component serial digital interface kit (video))<br>BKM-102 (Component serial digital interface kit (audio))<br>BKM-103 (Serial remote control kit for RS-422)<br>SLR-103A (Slide rail)<br>TU-1040E (Tuner unit) |



### Specifications

| | |
|---|---|
| CRT | |
| AG pitch: | 0.31 mm |
| phosphor: | EBU |
| CRT size: | 53.3 cm (20-inch) diagonally |
| Visible picture size: | 48.3 cm (19-inch) diagonally |
| Resolution: | 800TV lines |
| Colour system: | PAL, NTSC, SECAM, $\text{NTSC}_{4.43}$*3 |
| Aperture correction: | 0 to +6dB |
| Frequency response: | LINE: 10.0 MHz (±3dB) *Y signal only<br>RGB: 10.0 MHz (±3dB) |
| Synchronization: | AFC time constant 1.0mS |
| Normal scan: | 7% over scan |
| Under scan: | 5% under scan |
| Linearity: | H: less than 5%<br>V: less than 5% |
| Convergence: | centre: 0.5 mm (typical)<br>peripheral: 0.7 mm (typical) |
| Raster size stability: | H: 1.0%<br>V: 1.5% |
| HV regulation: | 4.0% |
| Colour temperature: | D65, D93, USER (3200K to 10000K) |
| Audio out: | 0.8W (distortion: less than 5%) |
| Power Consumption: | 130W (with SDI: 140W) |
| AC input range: | AC100 to 240V (50/60Hz) |
| Operation temperature: | 0° to 35°C |
| Storage temperature: | -10° to 40°C |
| Operating humidity: | 35 to 85% (no condensation) |
| Storage humidity: | 0 to 90% |
| Pressure: | 880 to 1060hPa |
| Dimensions: | 450(W) × 458(H) × 503(D) mm<br>(17¾ × 18⅛ × 19⅞ inches) |
| Mass: | 30.0 kg (66 lb 2 oz) |

**Inputs / Outputs**

| | |
|---|---|
| LINE A/B*4 | |
| | 1.0Vp-p±6dB<br>Loop-through BNC automatic 75Ω termination*5 |
| LINE C*4 | |
| | Y: 1.0Vp-p±6dB<br>C: 0.3Vp-p±6dB<br>Loop-through Mini DIN 4-pin automatic 75Ω termination*5 |
| RGB / Component (selectable)*6 | |
| | R/R-Y: 0.7Vp-p±6dB<br>G: 0.7Vp-p±6dB<br>Sync on G: 0.3Vp-p±6dB<br>Y: 0.7Vp-p±6dB<br>B/B-Y: 0.7Vp-p±6dB<br>Loop-through BNC automatic 75Ω termination*5 |
| External Sync | |
| | 4Vp-p±6dB, negative<br>Loop-through BNC automatic 75Ω termination*5 |

**Regulation Compliance:**

TÜV IEC-950, CE (EMC, LVD)
C-Tick (for PVM-20M4A)

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*1 PVM-20M4A is an Australian version.
*2 Phase setup is for NTSC signals only.
*3 The $\text{NTSC}_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*4 The Y/C input has priority over the Composite video input.
*5 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*6 Video amplitude 100/0/100 colour bars.

## 20" PVM-20M2E (PAL/NTSC/SECAM/NTSC$_{4.43}$)

### Colour Video Monitor

•High resolution of 600TV lines with dark tint CRT for high contrast image reproduction •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup[*1] •Accepts external sync •Auto/Manual degaussing •Mountable into an EIA standard rack with the optional SLR-103A

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| | |
|---|---|
| Supplied accessories: | 20-pin remote cable<br>Tally label<br>AC cord<br>AC plug holder<br>Operation manual |
| Optional accessories: | BKM-101C (Component serial digital interface kit (video))<br>BKM-102 (Component serial digital interface kit (audio))<br>BKM-103 (Serial remote control kit for RS-422)<br>SLR-103A (Slide rail)<br>TU-1040E (Tuner unit) |

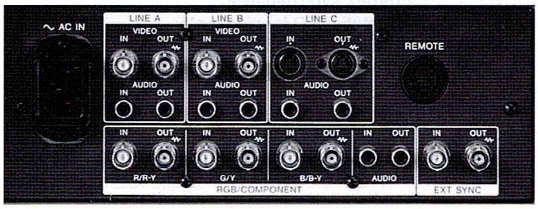
### Specifications

| | |
|---|---|
| CRT | |
| AG pitch: | 0.4 mm |
| phosphor: | P-22 |
| CRT size: | 53.3 cm (20-inch) diagonally |
| Visible picture size: | 48.0 cm (19-inch) diagonally |
| Resolution: | 600TV lines |
| Colour system: | PAL, NTSC, SECAM, NTSC$_{4.43}$[*2] |
| Aperture correction: | 0 to +6dB |
| Frequency response: | LINE: 10.0 MHz (±3dB) *Y signal only<br>RGB: 10.0 MHz (±3dB) |
| Synchronization: | AFC time constant 1.0mS |
| Normal scan: | 7% over scan |
| Under scan: | 5% under scan |
| Linearity: | H: less than 5%<br>V: less than 5% |
| Convergence: | centre: 0.6 mm (typical)<br>peripheral: 1.0 mm (typical) |
| Raster size stability: | H: 1.0%<br>V: 1.5% |
| HV regulation: | 4.0% |
| Colour temperature: | D65, D93, USER (3200K to 10000K) |
| Audio out: | 0.8W (distortion: less than 5%) |
| Power Consumption: | 120W (with SDI: 130W) |
| AC input range: | AC100 to 240V (50/60Hz) |
| Operation temperature: | 0° to 35°C |
| Storage temperature: | -10° to 40°C |
| Operating humidity: | 35 to 85% (no condensation) |
| Storage humidity: | 0 to 90% |
| Pressure: | 880 to 1060hPa |
| Dimensions: | 450(W) × 458(H) × 503(D) mm<br>(17¾ × 18⅛ × 19⅞ inches) |
| Mass: | 30.0 kg (66 lb 2 oz) |

**Inputs / Outputs**

LINE A/B[*3]
1.0Vp-p±6dB
Loop-through BNC automatic 75Ω termination[*4]

LINE C[*3]
Y: 1.0Vp-p±6dB
C: 0.3Vp-p±6dB
Loop-through Mini DIN 4-pin automatic 75Ω termination[*4]



RGB / Component (selectable)[*5]
R/R-Y: 0.7Vp-p±6dB
G: 0.7Vp-p±6dB
Sync on G: 0.3Vp-p±6dB
Y: 0.7Vp-p±6dB
B/B-Y: 0.7Vp-p±6dB
Loop-through BNC automatic 75Ω termination[*4]

External Sync
4Vp-p±6dB, negative
Loop-through BNC automatic 75Ω termination[*4]

**Regulation Compliance:**
TÜV IEC-950, CE (EMC, LVD)

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*1 Phase setup is for NTSC signals only.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*5 Video amplitude 100/0/100 colour bars.

## 20" PVM-20N2E/20N2A*1 (PAL/NTSC/SECAM/NTSC$_{4.43}$)

### Colour Video Monitor

•Resolution of 500TV lines •Beam current feedback circuit for stability in the colour balance •Accepts composite video, Y/C and RGB signals •Switchable aspect ratio (4:3 and 16:9) •On-screen menu for adjustment/operation •Input channel can be selected via REMOTE terminal (Phono) •Built-in speaker •Mountable into a 19-inch EIA standard rack with the optional SLR-103A

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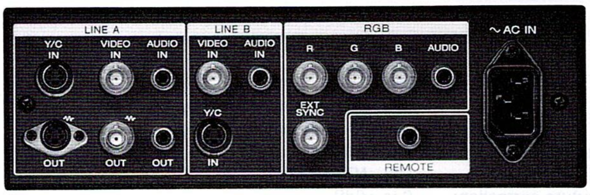
SONY
POWER



| | |
|---|---|
| Optional accessories: | Slide rail kit SLR-103A |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$*2 |
| Picture tube: | 53 cm(20-inch), visible picture size 48.0 cm (min.) (19-inch) measured diagonally, 90° deflection |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 105W |
| Dimensions: | 449(W) × 441(H) × 502(D) mm<br>(17 11/16 × 17 3/8 × 19 3/4 inches) |
| Mass: | 28 kg (61 lb 11 oz) |
| **VIDEO** | |
| LINE A*3 | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*4<br>Loop-through Mini DIN 4-pin<br>Y (luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*4<br>C (chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination*4<br>NTSC: 0.286Vp-p, Automatic 75Ω termination*4 |
| LINE B*3 | BNC<br>1.0Vp-p, sync negative, 75Ω<br>Mini DIN 4-pin<br>Y: 1.0Vp-p, sync negative, 75Ω<br>C: PAL: 0.3Vp-p, sync negative, 75Ω<br>NTSC: 0.286Vp-p, 75Ω |
| RGB/Sync | BNC<br>R/G/B: 0.7Vp-p, 75Ω<br>Sync on G: 0.3Vp-p, 75Ω<br>Sync: 4Vp-p, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Phono<br>-5dBu, high impedance |
| RGB/Sync | Phono<br>-5dBu, high impedance |

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*1 PVM-20N2A is an Australian version.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 20" PVM-20N1E/20N1A[*1] (PAL/NTSC/SECAM/NTSC$_{4.43}$)

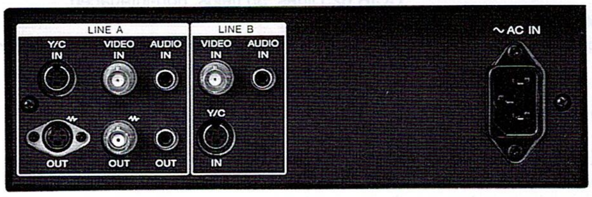
### Colour Video Monitor

•Resolution of 500TV lines •Beam current feedback circuit for stability in the color balance •Accepts composite video and Y/C signals •On-screen menu for adjustment/operation •Built-in speaker •Mountable into a 19-inch EIA standard rack with the optional SLR-103A

| | |
|---|---|
| Optional accessories: | Slide rail kit SLR-103A |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$[*2] |
| Picture tube: | 53 cm(20-inch), visible picture size 48.0 cm(min.) (19-inch) measured diagonally, 90° deflection |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 105W |
| Dimensions: | 449(W) × 441(H) × 502(D) mm<br>($17\frac{11}{16} \times 17\frac{3}{8} \times 19\frac{3}{4}$ inches) |
| Mass: | 28 kg (61 lb 11 oz) |
| **VIDEO** | |
| LINE A[*3] | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination[*4]<br>Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative,Automatic 75Ω termination[*4]<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination[*4]<br>NTSC: 0.286Vp-p, Automatic 75Ω termination[*4] |
| LINE B[*3] | BNC<br>1.0Vp-p, sync negative, 75Ω<br>Mini DIN 4-pin<br>Y: 1.0Vp-p, sync negative, 75Ω<br>C: PAL: 0.3Vp-p, sync negative, 75Ω<br>NTSC: 0.286Vp-p, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Phono<br>-5dBu, high impedance |



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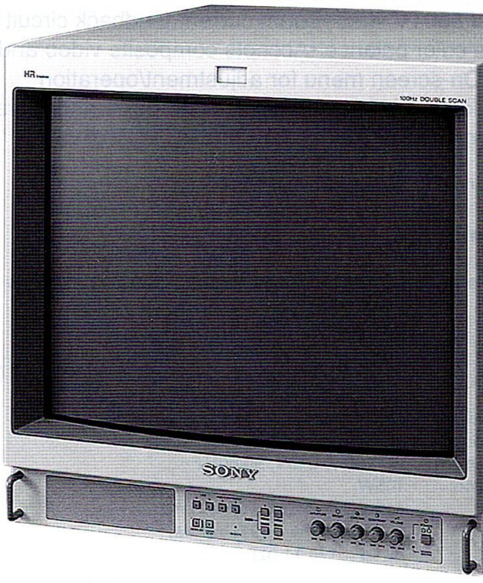
[*1] PVM-20N1A is an Australian version.
[*2] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
[*3] The Y/C input has priority over the Composite video input.
[*4] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

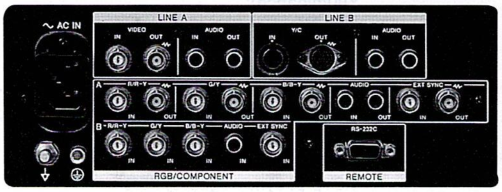
## 20" PVM-20M7MDE (PAL)

### HR Tninitron CRT, EBU phosphors for medical use, 100Hz double scan



•High resolution of 550TV lines*1 at 15kHz/800TV lines at progressive scan •Adopts EBU phosphors •Digital PAL comb filter for accurate image reproduction •Field doubling scanning to reduce flicker phenomena •Component (Y/R-Y/B-Y or RGB) input facility •On-screen display in multiple language for adjustment/operation •6500K/5600K/User preset colour temperature selectable •Accepts external sync •RS-232C serial remote control capability •Remote/tally input •Power saving function is available •Mountable into a 19-inch EIA standard rack with optional SLR-103A •White colour cabinet with splash-proof covers and control panel cover •Complies with IEC-601-1 safety regulation

| | |
|---|---|
| Supplied accessories: | Splash-proof covers<br>Control panel cover<br>RS-232C interface manual<br>Quick reference card<br>AC power cord<br>Panel hinges<br>Instructions for use |
| Optional accessories: | Slide rail kit SLR-103A |



### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields, interlaced<br>CCIR 625 lines, 50 fields, non-interlaced |
| Colour system: | PAL |
| Picture tube: | 53.3 cm(20-inch), HR Trinitron tube, visible picture size 48.3 cm(min.) (19-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | PAL (15kHz): 550TV lines*1<br>Progressive scan: 800TV lines |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Approx. 160W |
| Dimensions: | 450(W) × 457.5(H) × 503(D) mm<br>(17¾ × 18⅛ × 19⅞ inches) |
| Mass: | 34 kg(74 lb 15 oz) |
| **VIDEO** | |
| LINE A | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*2 |
| LINE B | Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*2<br>C(chrominance):<br>0.3Vp-p, Automatic 75Ω termination*2 |
| RGB/Component | A: Loop-through BNC<br>R-Y/B-Y: 0.7Vp-p, Automatic 75Ω termination*2<br>Y: 1Vp-p, Automatic 75Ω termination*2<br>R/G/B: 0.7Vp-p, Automatic 75Ω termination*2<br>Sync on G: 0.3Vp-p, negative, Automatic 75Ω termination*2<br>Sync: 4Vp-p negative, Automatic 75Ω termination*2<br>B:BNC<br>R-Y/B-Y: 0.7Vp-p, 75Ω<br>Y: 1Vp-p, 75Ω<br>R/G/B: 0.7Vp-p, 75Ω<br>Sync on G: 0.3Vp-p, negative, 75Ω<br>Sync: 4Vp-p negative, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | A: Loop-through Phono<br>-5dBu, high impedance<br>B: Phono<br>-5dBu, high impedance |

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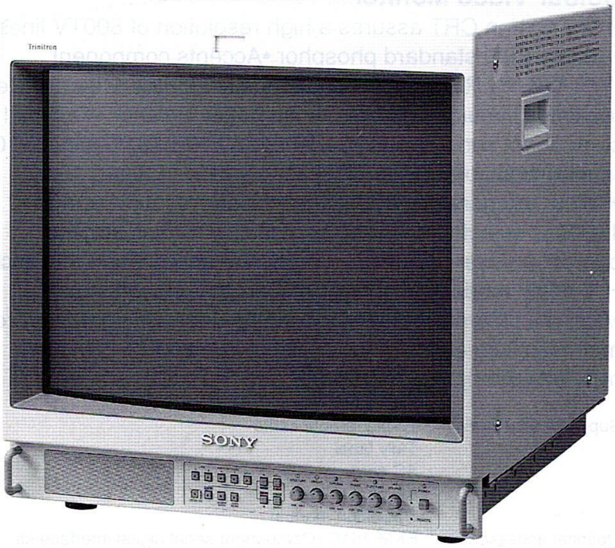
*1 Maximum resolution of the field doubling digital device circuit.
*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

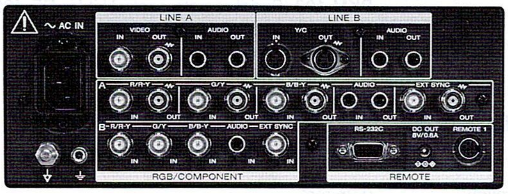
## 20" PVM-20M2MDE/20M2MDA*1 (PAL/NTSC)

### Colour Video Monitor for medical use

•High resolution of 600TV lines at centre •Beam current feedback circuit for stable colour reproduction •Component (Y/R-Y/B-Y or RGB) input facility •On screen display in multiple language for adjustment/operation •D65/D56/D93 User preset colour temperature selectable •Capable of observing two RGB input signals simultaneously with the RGB split mode •20% overscan/normal scan/underscan selection •Blue only mode •Accepts external sync •RS-232C serieal remote control capability •8V DC out •Tally lamp •Mountable into a 19-inch EIA standard rack with optional SLR-103A •White colour cabinet •Complies with EN-60601-1 safety regulation



| | |
|---|---|
| Supplied accessories: | AC power cord (1)<br>AC plug holder (1)<br>Side covers (2)<br>Control panel cover (1)<br>Panel hinges (2)<br>Remote control connector 8-pin mini DIN (1)<br>Instructions for Use (1)<br>RS-232C protocol manual |
| Optional accessories: | Slide rail kit SLR-103A |



### Specifications

| | |
|---|---|
| Colour system: | PAL/NTSC (automatically selected) |
| Picture tube: | 20-inch CRT with P-22 phosphor, visible picture size 479.8 mm (19-inch measured diagonally) |
| Horizontal resolution: | 600TV lines at centre (Video inputs) |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V 1.5 to 0.6A, 50/60Hz |
| Dimensions: | 450(W) × 457.5(H) × 503(D)mm<br>($17\frac{3}{4} \times 18\frac{1}{8} \times 19\frac{7}{8}$ inches) |
| Mass: | 30.0kg(66 lb 2 oz) |
| **VIDEO** | |
| LINE A | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*2 |
| LINE B | Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative,Automatic 75Ω termination*2<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination*2<br>NTSC: 0.286Vp-p, Automatic 75Ω termination*2 |
| RGB/Component | A: Loop-through BNC<br>R-Y/B-Y:<br>0.7Vp-p, Automatic 75Ω termination*2<br>Y/Sync on G:1Vp-p, sync negative, Automatic 75Ω termination*2<br>R/G/B:<br>0.7Vp-p, Automatic 75Ω termination*2<br>Sync:<br>4Vp-p negative, Automatic 75Ω termination*2<br>B:BNC<br>R-Y/B-Y:<br>0.7Vp-p, 75Ω<br>Y/Sync on G:<br>1Vp-p, sync negative, 75Ω<br>R/G/B:<br>0.7Vp-p, 75Ω<br>Sync:<br>4Vp-p negative, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | A: Loop-through Phono<br>-5dBu, high impedance<br>B: Phono<br>-5dBu, high impedance |

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*1: PVM-20M2MDA is an Australian version.
*2: 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 14" PVM-14M4E/14M4A[*1] (PAL/NTSC/SECAM/NTSC$_{4.43}$)

### Colour Video Monitor

•HR Trinitron CRT assures a high resolution of 800TV lines •Adopts EBU standard phosphor •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/ operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup[*2] •Accepts external sync •Auto/Manual degaussing •Minimizes magnetic field emission •Mountable into an EIA standard rack with the optional MB-502B and SLR-102

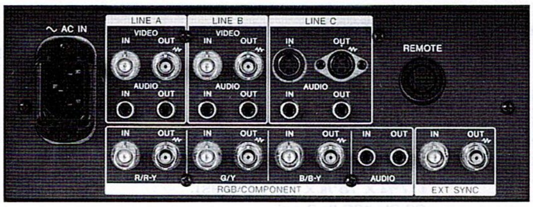
| | |
|---|---|
| Supplied accessories: | 20-pin remote cable<br>Tally label<br>AC cord<br>AC plug holder<br>Operation manual |
| Optional accessories: | BKM-101C (Component serial digital interface kit (video))<br>BKM-102 (Component serial digital interface kit (audio))<br>BKM-103 (Serial remote control kit for RS-422)<br>MB-502B (Rack mounting bracket)<br>SLR-102 (Slide rail)<br>TU-1040E (Tuner unit) |

### Specifications

| | |
|---|---|
| CRT | |
| AG pitch: | 0.25 mm |
| phosphor: | EBU |
| CRT size: | 37.1 cm (14-inch) diagonally |
| Visible picture size: | 33.2 cm (13-inch) diagonally |
| Resolution: | 800TV lines |
| Colour system: | PAL, NTSC, SECAM, NTSC$_{4.43}$[*3] |
| Aperture correction: | 0 to +6dB |
| Frequency response: | LINE: 10.0 MHz (±3dB) *Y signal only<br>RGB: 10.0 MHz (±3dB) |
| Synchronization: | AFC time constant 1.0mS |
| Normal scan: | 7% over scan |
| Under scan: | 5% under scan |
| Linearity: | H: less than 4%<br>V: less than 4% |
| Convergence: | centre: 0.4mm (typical)<br>peripheral: 0.5mm (typical) |
| Raster size stability: | H: 1.0%<br>V: 1.5% |
| HV regulation: | 3.5% |
| Colour temperature: | D65, D93, USER (3200K to 10000K) |
| Audio out: | 0.8W (distortion: less than 5%) |
| Power Consumption: | 90W (with SDI: 99W) |
| AC input range: | AC100 to 240V (50/60Hz) |
| Operation temperature: | 0° to 35° C |
| Storage temperature: | -10° to 40° C |
| Operating humidity: | 35 to 85% (no condensation) |
| Storage humidity: | 0 to 90% |
| Pressure: | 880 to 1060hPa |
| Dimensions: | 346(W) × 340(H) × 431(D) mm<br>(13⅝ × 13½ × 17 inches) |
| Mass: | 16.7 kg (36 lb 13 oz) |

**Inputs / Outputs**

| | |
|---|---|
| LINE A/B[*4] | 1.0Vp-p±6dB<br>Loop-through BNC automatic 75Ω termination[*5] |
| LINE C[*4] | Y: 1.0Vp-p±6dB<br>C: 0.3Vp-p±6dB<br>Loop-through Mini DIN 4-pin automatic[*5]<br>75Ω termination |



| | |
|---|---|
| RGB / Component (selectable)[*6] | R/R-Y: 0.7Vp-p±6dB<br>G: 0.7Vp-p±6dB<br>Sync on G: 0.3Vp-p±6dB<br>Y: 0.7Vp-p±6dB<br>B/B-Y: 0.7Vp-p±6dB<br>Loop-through BNC automatic 75Ω termination[*5] |
| External Sync | 4Vp-p±6dB, negative<br>Loop-through BNC automatic 75Ω termination[*5] |

**Regulation Compliance:**

TÜV IEC-950, CE (EMC, LVD)
C-Tick (for PVM-14M4A)

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*1 PVM-14M4A is an Australian version.

*2 Phase setup is for NTSC signals only.

*3 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.

*4 The Y/C input has priority over the Composite video input.

*5 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

*6 Video amplitude 100/0/100 colour bars.

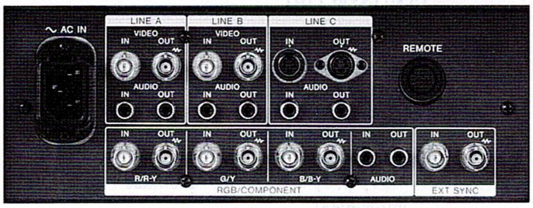
## 14" PVM-14M2E/14M2A*1 (PAL/NTSC/SECAM/$\text{NTSC}_{4.43}$)

### Colour Video Monitor

•High resolution of 600TV lines with dark tint CRT for high contrast image reproduction •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/ operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*2 •Accepts external sync •Auto/Manual degaussing •Mountable into an EIA standard rack with the optional MB-502B and SLR-102

Trinitron
SONY

| | |
|---|---|
| Supplied accessories: | 20-pin remote cable<br>Tally label<br>AC cord<br>AC plug holder<br>Operation manual |
| Optional accessories: | BKM-101C (Component serial digital interface kit (video))<br>BKM-102 (Component serial digital interface kit (audio))<br>BKM-103 (Serial remote control kit for RS-422)<br>MB-502B (Rack mounting bracket)<br>SLR-102 (Slide rail)<br>TU-1040E (Tuner unit) |



### Specifications

| | |
|---|---|
| CRT | |
| AG pitch: | 0.25 mm |
| phosphor: | P-22 |
| CRT size: | 37.1 cm (14-inch) diagonally |
| Visible picture size: | 33.2 cm (13-inch) diagonally |
| Resolution: | 600TV lines |
| Colour system: | PAL, NTSC, SECAM, $\text{NTSC}_{4.43}$*3 |
| Aperture correction: | 0 to +6dB |
| Frequency response: | LINE: 10.0 MHz (±3dB) *Y signal only<br>RGB: 10.0 MHz (±3dB) |
| Synchronization: | AFC time constant 1.0mS |
| Normal scan: | 7% over scan |
| Under scan: | 5% under scan |
| Linearity: | H: less than 4%<br>V: less than 4% |
| Convergence: | centre: 0.4 mm (typical)<br>peripheral: 0.5 mm (typical) |
| Raster size stability: | H: 1.0%<br>V: 1.5% |
| HV regulation: | 3.5% |
| Colour temperature: | D65, D93, USER (3200K to 10000K) |
| Audio out: | 0.8W (distortion: less than 5%) |
| Power Consumption: | 90W (with SDI: 99W) |
| AC input range: | AC100 to 240V (50/60Hz) |
| Operation temperature: | 0° to 35° C |
| Storage temperature: | -10° to 40° C |
| Operating humidity: | 35 to 85% (no condensation) |
| Storage humidity: | 0 to 90% |
| Pressure: | 880 to 1060hPa |
| Dimensions: | 346(W) × 340(H) × 431(D) mm<br>(13⅝ × 13½ × 17 inches) |
| Mass: | 16.7 kg (36 lb 13 oz) |

**Inputs / Outputs**

| | |
|---|---|
| LINE A/B*4 | 1.0Vp-p±6dB<br>Loop-through BNC automatic 75Ω termination*5 |
| LINE C*4 | Y: 1.0Vp-p±6dB<br>C: 0.3Vp-p±6dB<br>Loop-through Mini DIN 4-pin automatic 75Ω termination*5 |
| RGB / Component (selectable)*6 | R/R-Y: 0.7Vp-p±6dB<br>G: 0.7Vp-p±6dB<br>Sync on G: 0.3Vp-p±6dB<br>Y: 0.7Vp-p±6dB<br>B/B-Y: 0.7Vp-p±6dB<br>Loop-through BNC automatic 75Ω termination*5 |
| External Sync | 4Vp-p±6dB, negative<br>Loop-through BNC automatic 75Ω termination*5 |

**Regulation Compliance:**

TÜV IEC-950, CE (EMC, LVD)
C-Tick (for PVM-14M2A)

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*1 PVM-14M2A is an Australian version.
*2 Phase setup is for NTSC signals only.
*3 The $\text{NTSC}_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*4 The Y/C input has priority over the Composite video input.
*5 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*6 Video amplitude 100/0/100 colour bars.

## 14" PVM-14N2E/14N2A*1 (PAL/NTSC/SECAM/NTSC$_{4.43}$)

### Colour Video Monitor

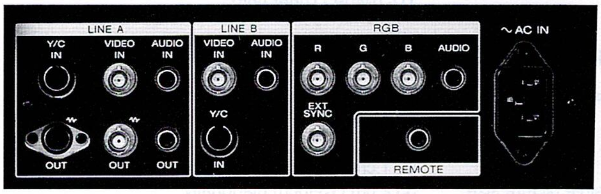
•Resolution of 500TV lines •Beam current feedback circuit for stability in the color balance •Accepts composite video, Y/C and RGB signals •Switchable aspect ratio (4:3 and 16:9) •On-screen menu for adjustment/operation •Input channel can be selected via REMOTE terminal (Phono) •Built-in speaker •Mountable into a 19-inch EIA standard rack with the optional MB-502 and SLR-102

| | |
|---|---|
| Optional accessories: | Rack mounting bracket kit MB-502B<br>Slide rail kit (used with the MB-502B) SLR-102 |

Trinitron
SONY
LINE A
LINE B
RGB
MENU
ENTER
POWER

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$*2 |
| Picture tube: | 37.1 cm(14-inch), visible picture size 33.2 cm(min.) (13-inch) measured diagonally, 90° deflection |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 80W |
| Dimensions: | 346 (W) × 340 (H) × 414 (D) mm<br>(13⅝ × 13⅜ × 16 5/16 inches) |
| Mass: | 15 kg (33 lb 1 oz) |
| **VIDEO** | |
| LINE A*3 | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*4<br>Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*4<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination*4<br>NTSC: 0.286Vp-p, Automatic 75Ω termination*4 |
| LINE B*3 | BNC<br>1.0Vp-p, sync negative, 75Ω<br>Mini DIN 4-pin<br>Y: 1.0Vp-p, sync negative, 75Ω<br>C: PAL: 0.3Vp-p, sync negative, 75Ω<br>NTSC: 0.286Vp-p, 75Ω |
| RGB/Sync | BNC<br>R/G/B: 0.7Vp-p, 75Ω<br>Sync on G: 0.3Vp-p, 75Ω<br>Sync: 4Vp-p, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Phono<br>-5dBu, high impedance |
| RGB/Sync | Phono<br>-5dBu, high impedance |



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*1 PVM-14N2A is an Australian version.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 The Y/C input has priority over the Compsite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 14" PVM-14N1E/14N1A*1(PAL/NTSC/SECAM/NTSC$_{4.43}$)

### Colour Video Monitor

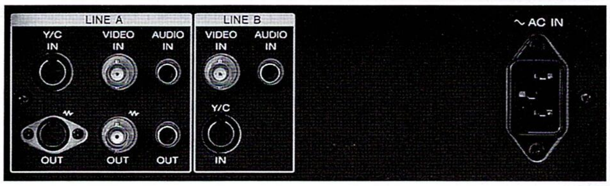
•Resolution of 500TV lines •Beam current feedback circuit for stability in the color balance •Accepts composite video and Y/C signals •On-screen menu for adjustment/operation •Built-in speaker •Mountable into a 19-inch EIA standard rack with the optional MB-502 and SLR-102

Trinitron
SONY
LINE A
LINE B
MENU EXIT
ENTER
POWER

| | |
|---|---|
| Optional accessories: | Rack mounting bracket kit MB-502B<br>Slide rail kit (used with the MB-502B) SLR-102 |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$*1 |
| Picture tube: | 37.1 cm(14-inch), visible picture size 33.2 cm(min.) (13-inch) measured diagonally, 90° deflection |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 80W |
| Dimensions: | 346(W) × 340(H) × 414(D) mm<br>(13⅝ × 13⅜ × 16 5/16 inches) |
| Mass: | 15 kg (33 lb 1 oz) |
| **VIDEO** | |
| LINE A*3 | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*4<br>Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*4<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination*4<br>NTSC: 0.286Vp-p, Automatic 75Ω termination*4 |
| LINE B*3 | BNC<br>1.0Vp-p, sync negative, 75Ω<br>Mini DIN 4-pin<br>Y: 1.0Vp-p, sync negative, 75Ω<br>C: PAL: 0.3Vp-p, sync negative, 75Ω<br>NTSC: 0.286Vp-p, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Phono<br>-5dBu, high impedance |



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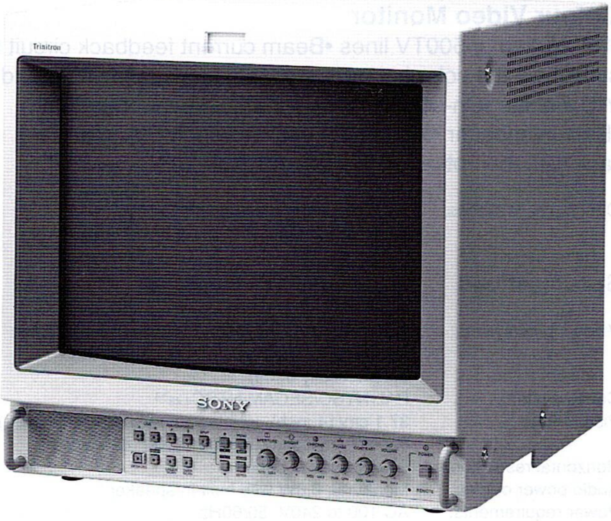
*1 PVM-14N1A is an Australian version.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 The Y/C input has priority over the Compsite vdeio input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

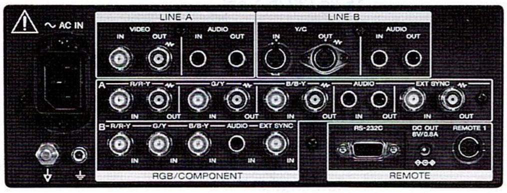
## 14" PVM-14M2MDE/14M2MDA*1 (NTSC/PAL/SECAM/NTSC$_{4.43}$)

### Colour Video Monitor for medical use

•High resolution of 600TV lines at centre •Beam current feedback circuit for stable colour reproduction •Component (Y/R-Y/B-Y or RGB) input facility •On-screen display in multiple language for adjustment/operation •D65/D56/D93/User preset colour temperature selectable •Capable of observing two RGB input signals simultaneously with the RGB split mode •20% overscan/normal scan/underscan selection •Blue only mode •Accepts external sync •RS-232C serieal remote control capability •8V DC out •Tally lamp •Mountable into a 19-inch EIA standard rack with optional MB-502B and SLR-102 •White colour cabinet •Complies with EN-60601-1 safety regulation



| | |
|---|---|
| Supplied accessories: | AC power cord (1)<br>AC plug holder (1)<br>Side covers (2)<br>Control panel cover (1)<br>Panel hinges (2)<br>Remote control connector 8-pin mini DIN (1)<br>Instructions for Use (1)<br>RS-232C protocol manual (1) |
| Optional accessories: | Mounting bracket MB-502B<br>Slide rail kits SLR-102 |



### Specifications

| | |
|---|---|
| Colour system: | PAL/NTSC (automatically selected) |
| Picture tube: | 14-inch CRT with P-22 phosphor, visible picture size 331.6 mm (13-inch measured diagonally) |
| Horizontal resolution: | 600TV lines at centre (Video inputs) |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V 1.2 to 0.5A, 50/60Hz |
| Dimensions: | 346(W) × 340(H) × 430.5(D) mm<br>($13\frac{5}{8} \times 13\frac{1}{2} \times 17$ inches) |
| Mass: | 16.7 kg (37 lb 8 oz) |
| **VIDEO** | |
| LINE A | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*2 |
| LINE B | Loop-through Mini DIN 4-pin<br>Y(luminance): 1.0Vp-p, sync negative, Automatic 75Ω termination*2<br>C(chrominance): PAL: 0.3Vp-p, Automatic 75Ω termination*2<br>NTSC: 0.286Vp-p, Automatic 75Ω termination*2 |
| RGB/Component | A: Loop-through BNC<br>R-Y/B-Y:<br>0.7Vp-p, Automatic 75Ω termination*2<br>Y/Sync on G:<br>1Vp-p, sync negative, Automatic 75Ω termination*2<br>R/G/B:<br>0.7Vp-p, Automatic 75Ω termination*2<br>Sync:<br>4Vp-p negative, Automatic 75Ω termination*2<br>B: BNC<br>R-Y/B-Y:<br>0.7Vp-p, 75Ω<br>Y/Sync on G:<br>1Vp-p, sync negative, 75Ω<br>R/G/B:<br>0.7Vp-p, 75Ω<br>Sync:<br>4Vp-p negative, 75Ω |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | A: Loop-through Phono<br>-5dBu, high impedance<br>B: Phono<br>-5dBu, high impedance |

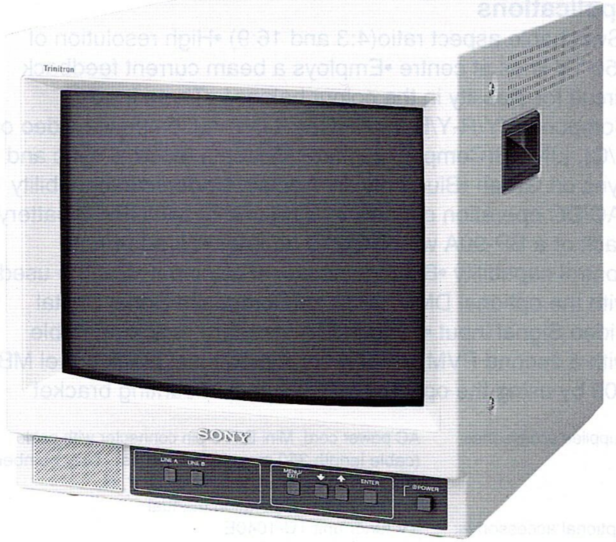
---

*1 PVM-14M2MDA is an Australian version.
*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

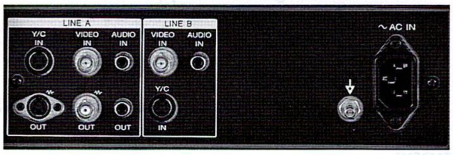
## 14" PVM-14N1MDE (PAL/NTSC/SECAM/NTSC$_{4.43}$)

### Colour Video Monitor for medical use

•High resolution of 500TV lines with Sony Trinitoron® CRT •Stable colour reproduction with Beam Current Feedback Circuit •Loop-through Y/C and composite video inputs •Complies with world-side EN60601-1 and UL-2601 safety regulations •Ground earth terminal for safety •Supplied with splash-proof covers •Accepts PAL, NTSC, SECAM and NTSC$_{4.43}$ signals •On-screen menu with a choice of five languages to facilitate monitor adjustment/setting •Built-in speaker for audio monitoring



| | |
|---|---|
| Supplied accessories: | AC power cord (1)<br>Splash-proof covers (2)<br>Operating instructions (1) |
| Optional accessories: | MB-502B Rack Mounting Bracket kit<br>SLR-102 Slide Rail kit (used with the MB-502) |



## Specifications

**General**

| | |
|---|---|
| System: | PAL/NTSC/SECAM/NTSC$_{4.43}$ automatically selected |
| Power requirements: | 100 to 240V, 50/60Hz |
| Power consumption: | 80W |
| Dimensions: | 346 ($13\frac{5}{8}$) × 340 ($13\frac{3}{8}$) × 414 ($16\frac{5}{16}$) mm |
| Mass: | 15 kg (33 lb 1 oz) |
| Operating temperature: | 0 to 40°C (32 to 10°F) |
| Storage temperature: | -10 to 40°C (14 to 10°F) |
| Humidity: | 0 to 90% |

**CRT Performance**

| | |
|---|---|
| CRT type: | 37cm (14-inch) Trinitron CRT with P-22 phosphors, visible picture size 33.2 cm (13-inch) (min.) measured diagonally |
| Resolution: | 500TV lines |
| Colour temperature: | 6500K |

**Picture performance**

| | |
|---|---|
| Normal scan: | 7% overscan |
| Linearity: | H: less than 8%<br>V: less than 7% |

**Input performance**

**Video**

| | | |
|---|---|---|
| LINE A*1 | Composite: | Loop-through BNC 1Vp-p+3dB-6dB, sync negative automatic 75Ω termination*2 |
| | Y/C*1: | Loop-through 4-pin mini DIN<br>Y: 1Vp-p+3dB-6dB, sync negative automatic 75Ω termination*2<br>C: 0.3Vp-p (PAL) or 0.286Vp-p (NTSC), automatic 75Ω termination*2 |
| LINE B*1 | Composite: | BNC 1Vp-p+3dB-6dB, sync negative, 75Ω |
| | Y/C*1: | 4-pin mini DIN<br>Y: 1Vp-p+3dB-6dB, sync negative, 75Ω<br>C: 0.3Vp-p (PAL) or 0.286Vp-p (NTSC), 75Ω |
| Frequency response: | 6MHz (±3dB) | |

**Audio**

| | |
|---|---|
| LINE A | Loop-through phono -5dBu, high impedance |
| LINE B | Phono -5dBu, high impedance |

0dBu=0.775Vr.m.s

---

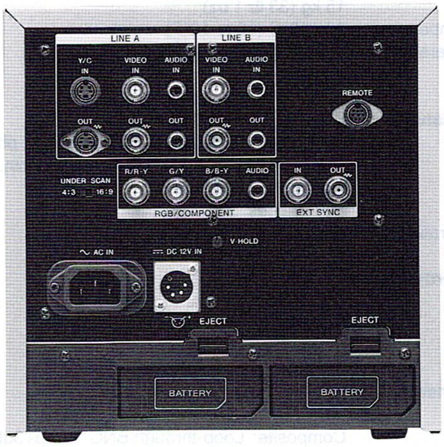
*1 Y/C input han priority over composite input.
*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 9" PVM-9044QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

### Ideal for picture evaluation in studio, ENG/EFP applications

•Switchable aspect ratio(4:3 and 16:9) •High resolution of 450 TV lines at centre •Employs a beam current feedback circuit for stability in the colour balance •Three inputs: Component(Y/R-Y/B-Y or RGB), LINE A(Composite video or Y/C), LINE B(Composite video) •Accepts external sync and sync on Green •Blue only, H/V delay, Underscan capability •AC/DC operation capability using one or two NP-1B battery pack or a BP-90A with DC-210 adapter •Wired remote control capability •Built-in speaker •Tally input •Can be used with the optional DMIF-2000 for Composite Serial Digital Video Signal input •19-inch EIA standard rack mountable with a second PVM-9044QM or the optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

| | |
|---|---|
| Supplied accessories: | AC power cord, Mini DIN 8-pin connector with cable (cable length 350 mm, 13 7/8 inches), Tally number plates (12 pcs: No.1 to 5, A, B, C, P, R, white × 2 pcs), Operation manual |
| Optional accessories: | TV tuner unit TU-1040E<br>Monitor ENG kit VF-505 (Monitor hood and cord reel)<br>Rack mounting bracket MB-507<br>Blank panel MB-509<br>Rechargeable battery pack NP -1B<br>Rechargeable battery pack BP-90A<br>Battery case (for BP-90A) DC-210<br>Battery charger (for four NP-1Bs) BC-1WDCE<br>Battery charger (for four NP-1Bs and four BP-90A) BC-410CE<br>Composite digital monitor interface DMIF-2000 |



### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$[*1]<br>(automatically selected) |
| Picture tube: | 22cm (9-inch) HR Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection |
| Horizontal resolution: | 450TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC: 100 to 240V 0.7 to 0.4A, 50/60Hz<br>DC: 12V 3.7A |
| Power consumption: | AC: 43W<br>DC: 40W |
| Dimensions: | 217(W) × 217(H) × 352.5(D) mm<br>(8⅝ × 8⅝ × 14 inches) |
| Mass: | 7.5 kg (16 lb 9.5oz) |
| **VIDEO** | |
| LINE A | |
| Composite[*2]: | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination[*3] |
| Y/C[*2]: | Loop-through Mini DIN 4-pin<br>Y(luminance): 1Vp-p, sync negative, Automatic 75Ω termination[*3]<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination[*3]<br>NTSC: 0.286Vp-p, Automatic 75Ω termination[*3] |
| LINE B | Composite: Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination[*3] |
| RGB/Component[*4] | BNC |
| R/R-Y: | Non-composite: 0.7Vp-p, 75Ω |
| Sync on Green/G/Y: | Composite: 1Vp-p, sync negative, 75Ω<br>Non-composite: 0.7Vp-p, 75Ω |
| B/B-Y: | Non-composite: 0.7Vp-p, 75Ω |
| External sync | Loop-through BNC<br>4Vp-p negative, Automatic 75Ω termination[*3] |
| Tally | Mini DIN 8-pin |
| DC | XLR 4-pin |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | Phono<br>-5dBu, high impedance |

[*1] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
[*2] The Y/C input has priority over the Composite video input.
[*3] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
[*4] Video amplitude 100/0/100 colour bars.

## **9"** PVM-9043MD (PAL/NTSC/NTSC$_{4.43}$)

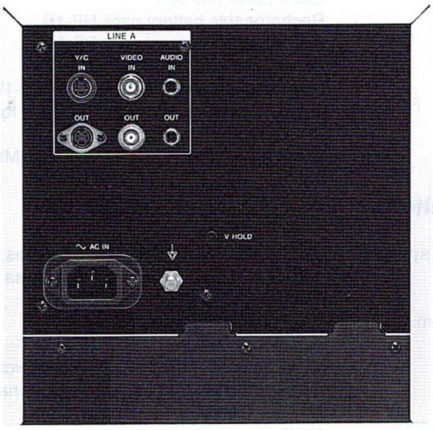
### Colour Video Monitor for medical use

•High resolution of 450TV lines at centre •Beam current feedback circuit for stable colour reproduction •Colour temperature 6500K •19-inch EIA standard rack mountable with a second PVM-9043MD or the optional blank panel MB-509 by using an optional MB-507 rack mounting bracket •White colour cabinet •Complies with IEC-601-1 safety regulation

| | |
|---|---|
| Supplied accessories: | Splash proof adapter<br>Front panel cover<br>Operation manual |
| Optional accessories: | Rack mounting bracket MB-507<br>Blank panel MB-509 |

### Specifications

| | |
|---|---|
| **General** | |
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/NTSC$_{4.43}$*1 (automatically selected) |
| Picture tube: | 22cm (9-inch) HR Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection |
| Horizontal resolution: | 450TV lines |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC 100 to 240V 0.7 to 0.4A, 50/60Hz |
| Power consumption: | 45W |
| Dimensions: | 217(W) × 217(H) × 352.5(D) mm<br>(8⅝ × 8⅝ × 14 inches) |
| Mass: | 7.8 kg (17 lb 3 oz) |
| **VIDEO** | |
| LINE A | Composite*2: Loop-through BNC, 1.0Vp-p, sync negative, Automatic 75Ω termination*3<br>Y/C*2: Loop-through Mini DIN 4-pin<br>Y(luminance): 1.0Vp-p, sync negative, Automatic 75Ω termination*3<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination*3<br>NTSC: 0.286Vp-p, Automatic 75Ω termination*3 |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |



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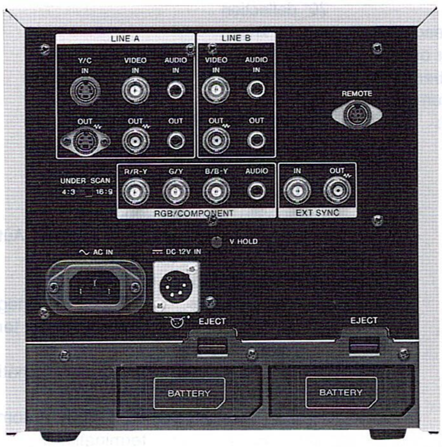
*1 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 9" PVM-9041QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

**Suitable for multi-purpose use in various applications**

•Switchable aspect ratio(4:3 and 16:9) •Employs a beam current feedback circuit for stability in the colour balance •Three input: Component(Y/R-Y/B-Y or RGB), LINE A(Composite video or Y/C), LINE B(Composite video) •Accepts external sync and sync on Green •Blue only mode, H/V delay, Underscan capability •AC/DC operation capability using one or two NP-1B battery pack or BP-90A with DC-210 adapter •Wired remote control capability •Built-in speaker •Tally input •Can be used with the optional DMIF-2000 for Composite Serial Digital Video Signal input •19-inch EIA standard rack mountable with a second PVM-9041QM or the optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

| | |
|---|---|
| Supplied accessories: | AC power cord, Mini DIN 8-pin connector with cable (cable length 350mm, 13 7/8 inches), Tally number plates (12 pcs: No.1 to 5, A, B, C, P, R, white × 2 pcs), Operation manual |
| Optional accessories: | TV tuner unit TU-1040E<br>Monitor ENG kit VF-505 (Monitor hood and cord reel)<br>Rack mounting bracket MB-507<br>Blank panel MB-509<br>Rechargeable battery pack NP-1B<br>Rechargeable battery pack BP-90A<br>Battery case (for BP-90A) DC-210<br>Battery charger (for four NP-1Bs) BC-1WDCE<br>Battery charger (for four NP-1Bs and four BP-90A) BC-410CE<br>Composite digital monitor interface DMIF-2000 |



## Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$*1 (automatically selected) |
| Picture tube: | 22cm (9-inch) Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection |
| Horizontal resolution: | 250TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC: 100 to 240V 0.7 to 0.4A, 50/60Hz<br>DC: 12V 3.7A |
| Power consumption: | AC: 43W<br>DC: 40W |
| Dimensions: | 217(W) × 217(H) × 352.5(D) mm (8⅝ × 8⅝ × 14 inches) |
| Mass: | 7.5 kg (16 lb 9.5 oz) |

| | |
|---|---|
| **VIDEO** | |
| LINE A | |
| Composite*2: | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*3 |
| Y/C*2: | Loop-through Mini DIN 4-pin<br>Y(luminance): 1Vp-p, sync negative, Automatic 75Ω termination*3<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination*3<br>NTSC: 0.286Vp-p, Automatic 75Ω termination*3 |
| LINE B | |
| Composite: | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*3 |
| RGB/Component*4 | BNC |
| R/R-Y: | Non-composite: 0.7Vp-p, 75Ω |
| Sync on Green/G/Y: | Composite: 1Vp-p, sync negative, 75Ω<br>Non-composite: 0.7Vp-p, 75Ω |
| B/B-Y: | Non-composite: 0.7Vp-p, 75Ω |
| External sync | Loop-through BNC<br>4Vp-p negative, Automatic 75Ω termination*3 |
| Tally | Mini DIN 8-pin |
| DC INPUT | XLR 4-pin |
| **AUDIO** | |
| LINE A | Loop-through Phono<br>-5dBu, high impedance |
| LINE B | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | Phono<br>-5dBu, high impedance |

---

*1 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*4 Video amplitude 100/0/100 colour bars.

## 9" PVM-9040ME (PAL/SECAM)

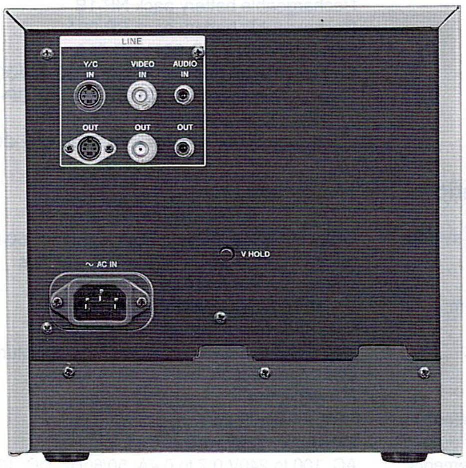
### Basic monitoring device

•Employs a beam current feedback circuit for stability in the colour balance •Composite video or Y/C input with audio input •Built-in speaker •19-inch EIA standard rack mountable with a second PVM-9040ME or the optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

| | |
|---|---|
| Supplied accessories: | AC power cord, Operation manual |
| Optional accessories: | TV tuner unit TU-1040E<br>Rack mounting bracket MB-507<br>Blank panel MB-509<br>Composite digital monitor interface DMIF-2000 |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields |
| Colour system: | PAL/SECAM (automatically selected) |
| Picture tube: | 22cm (9-inch) Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection |
| Horizontal resolution: | 250TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC: 100 to 240V 0.7 to 0.4A, 50/60Hz |
| Power consumption: | 39W |
| Dimensions: | 217(W) × 217(H) × 352.5(D) mm<br>(8⅝ × 8⅝ × 14 inches) |
| Mass: | 7.5 kg (16 lb 9.5oz) |
| **VIDEO** | |
| LINE | |
| Composite*1: | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*2 |
| Y/C*1: | Loop-through Mini DIN 4-pin<br>Y(luminance): 1Vp-p, sync negative, Automatic 75Ω termination*2<br>C(chrominance): 0.3Vp-p, Automatic 75Ω termination*2 |
| **AUDIO** | |
| LINE | Loop-through Phono<br>-5dBu, high impedance |



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*1 The Y/C input has priority over the Composite video input.
*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

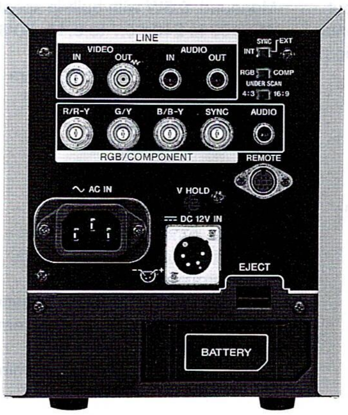
## 6" PVM-6041QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

### Suitable for picture confirmation in ENG/EFP application and multiple camera monitoring

•Employs a beam current feedback circuit for stability in the colour balance •Two input: Component (Y/R-Y/B-Y or RGB) input and Composite video input •Accepts external sync and sync on Green •Blue only, H/V delay, Underscan capability •AC/DC operation capability using one NP-1B battery pack or a BP-90A with DC-210 adapter •Wired remote control capability •Built-in speaker •Tally input •Can be used with the optional DMIF-2000 for Composite Serial Digital Video Signal input •19-inch EIA standard rack mountable with another two units of PVM-6041QM or two optional blank panel MB-508 by using the optional MB-507 rack mounting bracket

SONY
BRIGHT
CHROMA
PHASE
CONTER
VOLUME

| | |
|---|---|
| Supplied accessories: | AC power cord, Mini DIN 8-pin connector with cable (cable length 350mm, 13⅞ inches),<br>Operation manual |
| Optional accessories: | TV tuner unit TU-1040E<br>Monitor ENG kit VF-504 (Monitor hood and cord reel)<br>Rack mounting bracket MB-507<br>Blank panel MB-508<br>Rechargeable battery pack NP-1B<br>Rechargeable battery pack BP-90A<br>Battery case (for BP-90A) DC-210<br>Battery charger (for four NP-1Bs) BC-1WDCE<br>Battery charger (for four NP-1Bs and four BP-90As) BC-410CE<br>Composite digital monitor interface DMIF-2000 |



### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$*1 (automatically selected) |
| Picture tube: | 14.7cm (6-inch) Trinitron tube, visible picture size 13cm (5-inch) measured diagonally, 70° deflection |
| Horizontal resolution: | 250TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC: 100 to 240V 0.7 to 0.4A, 50/60Hz, DC: 12V 3.2A |
| Power consumption: | AC: 40W<br>DC: 40W |
| Dimensions: | 146(W) × 173(H) × 352.5(D) mm<br>(5¾ × 6⅞ × 14 inches) |
| Mass: | 5.5 kg (12 lb 2 oz) |
| **VIDEO** | |
| LINE | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*2 |
| RGB/Component*3 | BNC |
| R/R-Y: | Non-composite:0.7Vp-p, 75Ω |
| G/Sync on Green/Y: | Composite:1Vp-p, sync negative, 75Ω<br>Non-composite:0.7Vp-p, 75Ω |
| B/B-Y: | Non-composite:0.7Vp-p, 75Ω |
| External sync | BNC<br>4Vp-p negative, 75Ω |
| **AUDIO** | |
| LINE | Loop-through Phono<br>-5dBu, high impedance |
| RGB/Component | Phono<br>-5dBu, high impedance |

---

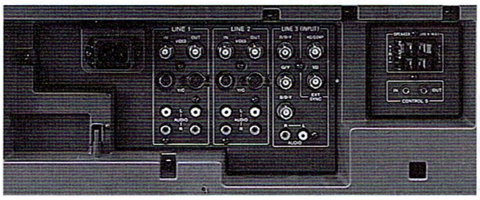
*1 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*3 RGB and Y/R-Y/B-Y input is switch selectable.

## 29" PVM-2950QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

### Cubic style monitor

•Switchable aspect ratio(4:3 and 16:9) •A high resolution of 600TV lines •Beam current feedback circuit for stability in the colour balace •On-screen menu for adjustment/operation •Accepts Composite video, Y/C, Component(Y/R-Y/B-Y or RGB) signals •Supplied wireless remote control unit RM-854 controls all monitor functions

| | |
|---|---|
| Supplied accessories: | AC power cord, AC plug holder, Remote controller RM-854, Battery for RM-854, Operation manual |
| Optional accessories: | Speakers: SS-X6A<br>TV tuner unit TU-1040E |



### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$*1 (automatically selected) |
| Picture tube: | 72.9cm(29-inch), Super Trinitron tube, visible picture size 67.5cm(27-inch)measured diagonally, 110° deflection |
| Horizontal resolution: | 600TV lines |
| Audio power output: | 7W+7W, 8 to 16Ω |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 165W (typical) |
| Dimensions: | 687(W) × 538(H) × 529(D) mm<br>(27⅛ × 21¼ × 20⅞ inches) |
| Mass: | 52 kg(114 lb 10 oz) |
| **VIDEO** | |
| LINE 1/2 | |
| Composite*2: | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination*3 |
| Y/C*2: | Loop-through Mini DIN 4-pin<br>Y(luminance):1Vp-p, sync negative, Automatic 75Ω termination*3<br>C(chrominance):<br>PAL:0.3Vp-p, Automatic 75Ω termination*3<br>NTSC:0.286Vp-p, Automatic 75Ωtermination*3 |
| LINE 3 | |
| RGB/Component: | BNC |
| R/R-Y: | Non-composite: 0.7Vp-p, 75Ω |
| Sync on G/G/Y: | Composite: 1Vp-p, sync negative, 75Ω<br>Non-composite: 0.7Vp-p, 75Ω |
| B/B-Y: | Non-composite: 0.7Vp-p, 75Ω |
| Sync: | Composite sync: BNC<br>Analogue level: 0.5 to 5Vp-p, high impedance,positive/negative<br>TTL level: positive/negative<br>HD/VD separate: BNC<br>Analogue level: 0.5 to 5Vp-p, high impedance,positive/negative<br>TTL level: positive/negative |
| **AUDIO** | |
| LINE 1/2 | Loop-through Phono (×2)<br>-5dBu, high impedance |
| LINE 3 | Phono (×2)<br>-5dBu, high impedance |

MUTING
DISPLAY
POWER
LINE 1
LINE 2
LINE 3
SELECT
VOL
CH
MENU
ENTER
CONTRAST
BRIGHTNESS
APERTURE
ID MODE
ON
OFF
SET
CHROMA
PHASE
SONY

RM-854

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*1 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 Y/C input has priority over the Composite video input.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 20" PVM-20S1WE (PAL/NTSC/SECAM/NTSC4.43)

### Colour Video Monitor with 16:9 aspect ratio

•16:9 aspect ratio CRT with dark panel for high contrast image reproduction •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video) / 102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*1 •Accepts external sync •Digital 3-line comb filter •Auto/Manual degaussing •Mountable into an EIA standard rack with the optional SLR-103 slide rail kit

| | |
|---|---|
| Supplied accessories: | 20-pin remote cable<br>Tally label<br>AC power cord<br>AC plug holder<br>Blind panel kit for SLR-103A*<br>Operation manual |
| Optional accessories: | BKM-101C (component serial digital interface kit (video))<br>BKM-102 (component serial digital interface kit (audio))<br>BKM-103 (serial remote control kit for RS-422A)<br>SLR-103A (slide rail) |

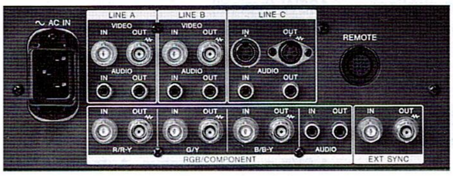
*Because the bezel protrudes from the rack when you mount the PVM-20S1WE, you cannot completely insert the SLR-103A.
The blind panel kit is supplied to cover the exposed part of the slide rail.

### Specifications

| | |
|---|---|
| CRT: | |
| AG pitch: | Variable pitch 0.65 to 0.75 mm |
| Phosphor: | P-22 |
| Visible screen size: | 46 cm (18inch) diagonally |
| Resolution: | 300TV lines |
| Colour system: | PAL, NTSC, SECAM, NTSC$_{4.43}$*2 |
| Aperture correction: | 0 to +6dB |
| Frequency response: | |
| LINE: | 6MHz(±3dB) *Y signal only |
| RGB: | 6MHz(±3dB) |
| Synchronization: | AFC time constant 1.0mS |
| Normal scan: | 7% over scan |
| Under scan: | 5% under scan |
| Linearity: | |
| H: | less than 8% (typical) |
| V: | less than 7% (typical) |
| Convergence: | |
| Centre: | 0.6mm (typical) |
| Peripheral: | 1.2mm (typical) |
| Raster size stability: | |
| H: | 1.0% |
| V: | 1.5% |
| HV regulation: | 4.0% |
| Colour temperature: | D65, D93, USER (3200K to 10000K) |
| Speaker out: | 0.8W (distortion: less than 5%) |
| Power consumption: | 100W (with SDI: 110W) |
| AC input range: | AC220 to 240V (50/60Hz) |
| Operation temperature: | 0 to 35°C |
| Strage tenperature: | -10° to 40°C |
| Operation humidity: | 35 to 85% (no condensation) |
| Strage humidity: | 0 to 90% |
| Dimensions: | 482(W) × 397(H) × 503(D) mm<br>19 × 15¾ × 19⅞ inches |
| Mass: | approx. 25 kg (55 lb 2oz)<br>{including SDI : 26 kg (57 lb 5 oz)} |

### Inputs/Outputs

| | |
|---|---|
| Line A/B:*3 | 1.0Vp-p±6dB<br>Loop-through BNC automatic 75Ω termination*4 |
| Line C:*3 | |
| Y: | 1.0Vp-p±6dB |
| C(NTSC): | 0.286Vp-p±6dB<br>Loop-through Mini DIN 4-pin automatic 75Ω termination*4 |



| | |
|---|---|
| RGB/Component (selectable):*5 | |
| R/R-Y: | 0.7Vp-p±6dB |
| G: | 0.7Vp-p±6dB |
| Sync on G: | 0.3Vp-p ±6dB |
| Y: | 1.0Vp-p±6dB |
| B/B-Y: | 0.7Vp-p±6dB<br>Loop-through BNC automatic 75Ω termination*4 |
| External sync: | 4Vp-p±6dB, negative<br>Loop-through BNC automatic 75Ω termination*4 |
| **Regulation Compliance:** | TÜV IEWC-950, CE (EMC, LVD) |

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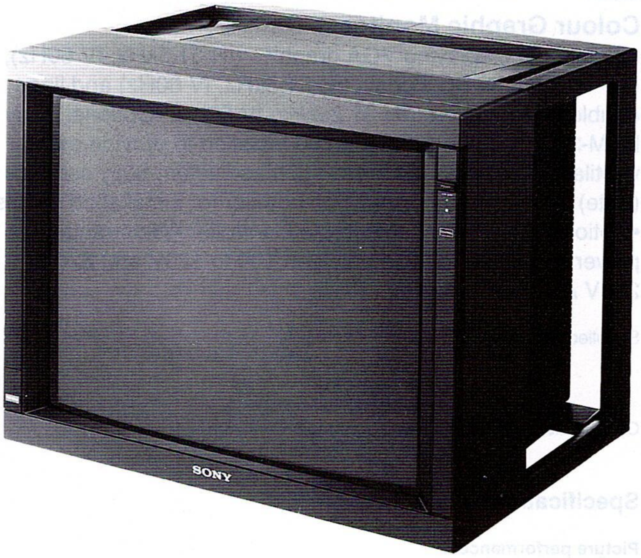
*1 Phase setup is for NTSC signals only.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75Ω termination is automatically set to OFF when connection is made to the OUT connector.
*5 Video amplitude 100/0/100 colour bars.

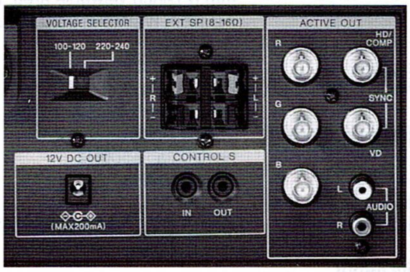
## 29" PGM-200R1E/200R1A

### Colour Graphic Monitor

•Cubic style colour graphic monitor •Accepts VGA signals (fH 31.5kHz, fV 60Hz/70Hz) •The optional BKM-201SC Scan Converter Adaptor enables the monitor to serve as a multi-frequency monitor (capture range: fH 15.6kHz to 85kHz, fV 50Hz to 120Hz) •Active loop-through output •ID remote control •Wide range power supply (switchable between 100 to 120V and 220 to 240V AC)



| | |
|---|---|
| Supplied accessories: | AC power cord (1) |
| | AC plug holder (1) |
| | Remote controller RM-921 with two AA (R6) batteries (1) |
| | Ferrite core (2) |
| | Operating instructions (1) |
| Optional accessories: | Scan converter adaptor BKM-201SC |
| | Cooling fan unit BKM-202FN |
| | Speaker system SS-X7A |
| | TV tuner TU-1040E |



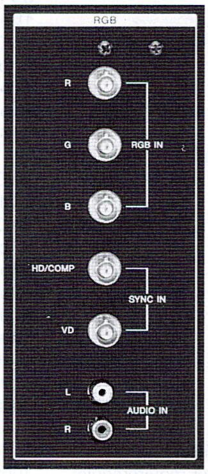
### Specifications

**Picture performance**

| | |
|---|---|
| CRT: | 29-inch Super Trinitron tube, visible picture size 675mm (27-inch viewable area measured diagonally), AG pitch (variable) 0.70 - 0.85 mm, Anti-glare and anti-static |
| Resolution: | 640 × 480 dots max. |
| Scanning frequency: | fH 31.5kHz fV 60/70Hz, fH 31.25kHz fV 50Hz |
| Frequency response: | 16MHz (–3dB) |
| Line pull range: | Horizontal: ±500Hz |
| | Vertical: -8Hz |
| Zooming: | Within 5% |
| Colour temperature: | 9300K (standard)/6500K switchable |

**Input/Output**

| | | |
|---|---|---|
| Input | R, G, B: | BNC |
| | | 0.714Vp-p / non-composite, 75Ω terminated |
| | | 1Vp-p / composite, 75Ω terminated |
| | HD/COMP, VD: | BNC |
| | | H (or composite) sync, V sync |
| | | 1 - 5Vp-p, high impedance |
| | AUDIO (L, R): | Phono |
| | | 500mV rms, high impedance |
| Output | R, G, B: | BNC |
| | | 0.714Vp-p / non-composite, 75Ω terminated |
| | HD/COMP, VD: | BNC |
| | | H (or composite) sync, V sync |
| | | 5Vp-p, high impedance |
| | AUDIO (L, R): | Phono |
| | | Audio gain +/-1.0dB typical |
| | | Total harmonic distortion less than 1% |
| | | 500mV rms |
| | SP OUT: | 8 to 16 ohms, 7W + 7W (at 8-ohm) |
| 12V DC OUT (for BKM-202FN): | | 12V DC 200mA max. |
| Control S IN/OUT: | | mini jack, 5Vp-p |



**General**

| | |
|---|---|
| Power requirements: | 220V to 240V AC selectable 50/60Hz |
| Power consumption: | max. 183W |
| | (with BKM-201SC: max. 208.5W) |
| Operating temperature: | 0°C to 35°C (32°F to 95°F) |
| Dimensions: | 687(W) × 538(H) × 520(D) mm |
| | (27⅛ × 21¼ × 20½ inches) |
| Mass: | Approx. 55 kg (121 lb 4 oz) |

**Regulation Compliance:**

UL 1950, CSA 22.2 No.950, TÜV EN-60950 (CE LVD)
FCC Class A, IC Class A,
CE EN55022 Class-B / EN50082 - 1 / EN60555 - 2,
VCCI-1, DHHS, DNHW, PTB

## 29" PGM-200R2E

### Colour Graphic Monitor

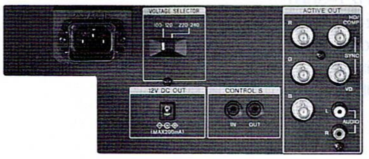
•Capable of displaying VGA graphics (fH 31.5kHz, fV 60Hz), line-doubled NTSC signals (fH 31.5kHz, fV 60Hz) and line-doubled PAL signals (fH 31.25kHz, fV 50Hz) •Optional Sony BKM-202FN Cooling Fan can be installed to provide extra ventilation for enclosed areas such as custom-buily cabinets (note) Call your authorized Sony dealer for installation details •Optional Sony RM-921 Remote Controler •Wide range power supply switchable between 100 to 120V and 220 to 240V AC

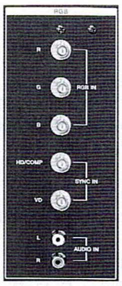
| | |
|---|---|
| Supplied accessories: | AC power cord (1)<br>AC plug holder (1)<br>Ferrite core (2)<br>Operating instructions (1) |
| Optional accessories: | RM-921 Remote Controller<br>BKM-202FN Cooling Fan Unit |

### Specifications

**Picture performance**

| | |
|---|---|
| CRT: | 29-inch Super Trinitron tube, visible picture size 675 mm (27-inch viewable area, measured diagonally), AG pitch (variable) 0.70 to 0.85 mm, Aniti-glare and Anti-static |
| Resolution: | 640 × 480 dots max. |
| Scanning frequency: | fH: 31.5kHz fV: 60HZ<br>fH: 31.25kHz fV: 50Hz |
| Frequency response: | 16Mhz (-3dB) |
| Line pull range: | Horizontal: ±500Hz<br>Vertical: -8Hz |
| Zooming: | Within 5% |
| Color temperature: | 9300K (standard)/6500K switchable |





**Input/Output**

Input:

| | |
|---|---|
| R, G, B: | BNC<br>0.714Vp-p/non-composite, 75Ω terminated<br>1Vp-p/composite, 75Ω terminated |
| HD/COMP, VD: | BNC<br>H (or composite) sync, V sync<br>5Vp-p, high impedance |
| Audio (L, R): | Phono<br>5dBu, high impedance |

output:

| | |
|---|---|
| R, G, B: | BNC<br>0.714Vp-p/non-composite, 75Ω terminated |
| HD/COMP, VD: | BNC<br>H (or composite) sync, V sync<br>5Vp-p, high impedance |
| Audio (L, R): | Phono<br>Audio gain ±1.0dB typical<br>Total harmonic distortion less than 1%, 5dBu |
| 12V DC OUT (for BKM-202FN): | 12V DC 200mA max. |
| Control S IN/OUT: | mini jack |

**General**

| | |
|---|---|
| Power requirements: | 100V to 120V/220V to 240V AC selectable, 50/60Hz<br>Preset: PGM-200R2E: 220 to 240V |
| Power consumption: | max. 183W |
| Operating temperature: | 0° to 35° (32°F to 95°F) |
| Dimensions: | 687(W) × 538(H) × 520(D) mm<br>($27\frac{1}{8}$ × $21\frac{1}{4}$ × $20\frac{1}{2}$ inches) |
| Mass: | Approx. 51.5 kg (113 lb 8 oz) |

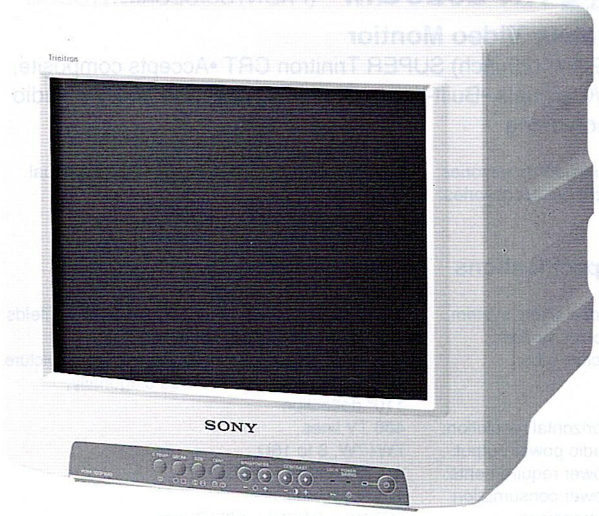
**Regulation Compliance:**

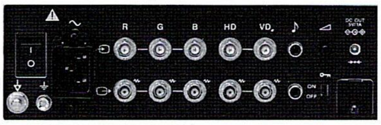
UL1950, CSA 22.2 No.950, EN60950, FCC Class-A, IC Class-A, EN55022 Class-B, EN50082-1, EN60555-2, VCCI, DHHS, DNHW, PTB

## PGM-100P1MD

### Colour Graphic Monitor for medical use

•High contrast Anti-Reflection Coated Trinitron® CRT •Light output of 160nits •Multiscan capability: fH 30 to 65kHz, fV: 50 to 120 Hz, 640 × 480 to 1280 × 1024 dots •BNC input with loop-through output •Built-in speaker •DC 5V/1A output •World-wide medical safety approval for professional medical use •Control inhibit function preventing from the inadvertent touching of control panel •Splash-proof cabinet and flush surface using a sheet-key •GCX mount or optional swivel stand installation capability •Power saving function





| | |
|---|---|
| Supplied accessories: | AC power cord (1)<br>Instruction manual |
| Optional accessories: | Monitor stand SU-556<br>Signal cable SMF-400<br>(D-sub 15-pin to 5 BNC cable) |

### Specifications

**General**

| | |
|---|---|
| Scanning frequency: | VGA to SVGA<br>Horizontal: 30 to 65kHz<br>Vertical: 50 to 120Hz |
| Power requirements: | 100 to 120V, 220 to 240V, 50/60Hz |
| Power consumption: | 130W (max.), 7W (stand by) |
| Dimensions: | 368(W) × 343(H) × 391(D) mm<br>(14½ × 13⅝ × 15½ inches) |
| Mass: | Approx. 15 kg (33 lb 1 oz) |

**CRT performance**

| | |
|---|---|
| CRT type: | 37cm (15-inch) Trinitron® CRT with P-22 phosphors, visible picture size 35.4cm (14-inch) (min.) measured diagonally, AG pitch 0.25mm, 90° deflection |
| Resolution: | 640 × 480 to 1280 × 1024 dots |
| Colour temperature: | 9300K/5000K/USER |

**Input performance**

| | |
|---|---|
| R/G/B: | Loop-through BNC<br>0.7Vp-p, Automatic 75Ω termination |
| HD/VD: | Loop-through BNC<br>TTL level, automatic 2.2kΩ termination |

**Audio performance**

| | |
|---|---|
| | Loop-through phono jack -5dBu, more than 47kΩ |
| Speaker out: | 0.2W, monaural |

## 29" KX-2920QM*1 (PAL/NTSC/SECAM/NTSC$_{4.43}$)

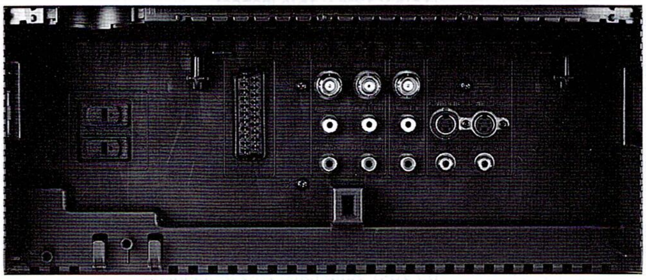
### Colour Video Montior

• 72cm (29-inch) SUPER Trinitron CRT •Accepts composite, Y/C signals •Built-in speaker and earphone jack for audio monitoring

| | |
|---|---|
| Supplied accessories: | Remote controller RM-831, Operation manual |
| Optional accessories: | Speakers:SS-X6A<br>TV tuner unit:TU-1040E |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$*2 |
| Picture tube: | 73cm (29-inch), Super Trinitron tube, visible picture size 68cm (27-inch)measured diagonally, 110° deflection |
| Horizontal resolution: | 480 TV lines |
| Audio power output: | 7W+7W, 8 to 16Ω |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 109W (typical) |
| Dimensions: | 668(W) × 645(H) × 525(D)mm<br>(26⅜ × 25½ × 20¾ inches) |
| Mass: | 53 kg(116 lb 13oz) |



**VIDEO**

| | |
|---|---|
| Line 1 | CENELEC 21-pin |
| Line 2 | Loop-through BNC<br>1Vp-p, sync negative, Automatic 75Ω termination*3 |
| Line 3 (front panel) | Composite: Phono<br>1Vp-p, sync negative, 75Ω<br>Y/C: Mini DIN 4-pin<br>Y (luminance): 1Vp-p, sync negative, 75Ω<br>C (chrominance): PAL: 0.3Vp-p, 75Ω<br>NTSC: 0.286Vp-p, 75Ω |
| Line 4 | Y/C: Loop-through Mini DIN 4-pin<br>Y (luminance): 1Vp-p, sync negative, Automatic 75Ωtermination*3<br>C (chrominance):PAL: 0.3Vp-p, Automatic 75Ω termination*3<br>NTSC: 0.286Vp-p,Automaic 75Ω termination*3 |

**AUDIO**

| | |
|---|---|
| Line 1 | CENELEC 21-pin |
| Line 2 | Loop-through Phono (×2)<br>-5dBu, high impedance |
| Line 3 (front panel) | Phono<br>-5dBu, high impedance |
| Line 4 | Loop-through Phono (×2)<br>-5dBu, high impedance |

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*1 This product is not available in some areas. For details, please consult your nearest Sony office.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 21" KX-2110QM[*1] (PAL/NTSC/SECAM/NTSC$_{4.43}$)

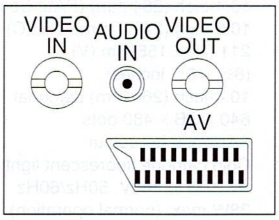
### Colour Video Monitor

•Black Trinitron CRT •Equipped with composite and RGB video connectors •Built-in speaker and earphone jack for audio monitoring

| | |
|---|---|
| Supplied accessories: | Remote commander RM-841, Operation manual |
| Optional accessories: | Speakers:SS-X6A<br>TV tuner unit:TU-1040E |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$*2(automatically selected) |
| Picture tube: | 55cm (21-inch) Hi-Black Trinitron tube, visible picture size 51cm (20-inch) measured diagonally, 100° deflection |
| Horizontal resolution: | 250TV lines |
| Audio power output: | 4W |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 65W |
| Dimensions: | 513(W) × 487(H) × 475(D) mm<br>(20⅛ × 19¼ × 18¾ inches) |
| Mass: | 24 kg (52 lb 15 oz) |
| **VIDEO** | |
| Composite: | Loop-through BNC,<br>1Vp-p, sync negative, Automatic 75Ω termination*3 |
| RGB: | CENELEC 21-pin |
| **AUDIO** | Phono<br>-5dBu, high impedance |



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*1 This product is not available in some areas. For details, please consult your nearest Sony office.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 14" KX-1410QM[*1] (PAL/NTSC/SECAM/NTSC$_{4.43}$)

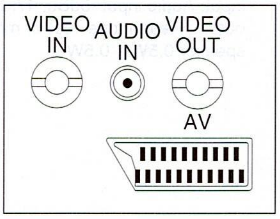
### Colour Video Monitor

•Black Trinitron CRT •Equipped with composite and RGB video connectors •Built-in speaker and earphone jack for audio monitoring

| | |
|---|---|
| Supplied accessories: | Remote commander RM-841, Operation manual |
| Optional accessories: | Speakers:SS-X6A<br>TV tuner unit:TU-1040E |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$*2(automatically selected) |
| Picture tube: | 36cm (14-inch) Black Trinitron tube, visible picture size 33.7cm (13-inch) measured diagonally, 90° deflection |
| Horizontal resolution: | 250TV lines |
| Audio power output: | 4W |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 45W |
| Dimensions: | 359(W) × 345(H) × 409(D) mm<br>(14¼ × 13⅝ × 16⅛ inches) |
| Mass: | 10.5 kg (23 lb 2 oz) |
| **VIDEO** | |
| Composite: | Loop-through BNC,<br>1Vp-p, sync negative, Automatic 75Ω termination*3 |
| RGB: | CENELEC 21-pin |
| **AUDIO** | Phono<br>-5dBu, high impedance |



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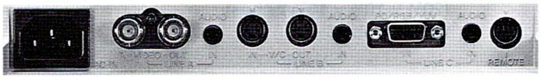
*1 This product is not available in some areas. For details, please consult your nearest Sony office.
*2 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 10.4" LMD-1041

### Multi-input LCD monitor

•Lightweight and compact design •Accepts not only computer signals (fH: 15kHz to 36kHz), but also a wide variety of video signals •Remarkably beautiful colour reproduction with the brilliant full-colour, high resolution LCD panel •Underscan function available •IR remote control available for easy operation when using multiple monitors •Stereo speaker available •Kensington MicroSaver Security System®, wire can be attached as a security measure •On-screen menu for facilitated operation



CONTROL S
OUT

| | |
|---|---|
| Supplied accessories: | Stand<br>Screws to secure stand (×2)<br>AC power cord<br>Remote control commander RM-LMD1041<br>Operating instructions |

## Specifications

**General**

| | |
|---|---|
| Video signal system | CCIR 625 lines, 50 fields*/EIA 525 lines, 60 fields |
| Colour system | PAL*/NTSC |
| Scanning frequency | VGA, Macintosh 13-inch mode<br>(fH: 15 to 36kHz, fV: 45 to 73Hz) |
| Panel type | a-Si TFT Active Matrix LCD<br>10.4-inch (264 mm) diagonal, viewable area<br>10.4-inch (264 mm) (PAL, Computer)/<br>10.2-inch (259.3 mm) (NTSC) diagonal |
| Pixel area | 211 (H) × 158 mm (V)<br>(8⅜ × 6¼ inches)<br>10.4-inch (264 mm) diagonal |
| Number of dots | 640 RGB × 480 dots |
| Display colour | Analogue full colour |
| Backlight | Cold cathode fluorescent light |
| Power requirements | AC 100 to 240V, 50Hz/60Hz |
| Power consumption | 28W max. (normal operation)<br>7W max. (standby) |
| Storage temperature | -20 to 60°C (-4 to 140°F) |
| Operating temperature | 5 to 35°C (41 to 95°F) |
| Dimensions: | 305(W) × 215.3(H) × 57.4(D) mm<br>(12 × 8⁴⁄₉ × 2¼ inches)<br>(projection not included) |
| Mass | Approx. 2 kg (4 lb 6 oz)<br>(stand not included) |

**Video**

| | |
|---|---|
| Line A | Loop-through BNC<br>1Vp-p±2dB sync negative, 75Ω |
| Line B | Loop-through Mini DIN 4-pin<br>Y: 1Vp-p±2dB sync negative, 75Ω<br>C: PAL 0.3Vp-p±2dB, 75Ω,<br>NTSC 0.286Vp-p±2dB |
| Line C | HD D-sub 15-pin<br>YUV: R-Y/B-Y: 0.7Vp-p<br>Y:1.0Vp-p (sync 0.3V) |
| RGB: | R/B/G: 0.7Vp-p<br>C sync: 1.0Vp-p |

**Computer**

| | |
|---|---|
| Computer | HD D-sub 15-pin (Line C)<br>RGB: 0.7Vp-p, 75Ω<br>Sync:<br>Composite sync: TTL level negative<br>Separate sync: TTL level negative/positive<br>Sync on G: 0.3Vp-p, negative |

**Audio**

| | |
|---|---|
| Audio signal | Mini jack<br>input: Audio input -5dBu, 47kΩ or more<br>output: Headphone 16Ω or more<br>speaker 0.5W + 0.5W |

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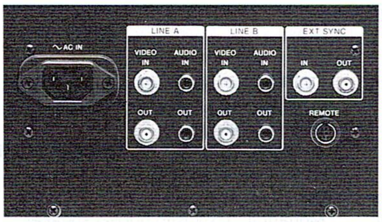
* Line reduction PAL signal.

## 14" PVM-146E (CCIR/EIA)

### Black & white monitor

•CCIR or EIA automatic selection •Switchable aspect ratio(4:3 and 16:9) •A high resolution of 1000TV lines at centre •Incorporates a CRT with D65 •H/V delay, Underscan capability •Equipped with a notch filter •Built-in speaker for audio monitoring •Accepts external sync •Tally input •Rack mountable with the optional mounting bracket MB-502B and slide rail kit SLR-102

| | |
|---|---|
| Supplied accessories: | AC power cord, AC plug holders, Number plate (1 set), Remote connector 8-pin, Operation manual |
| Optional accessories: | Rack mounting bracket MB-502B<br>Slide rail kit SLR-102 |



### Specifications

| | |
|---|---|
| **General** | |
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Picture tube: | 34cm (14-inch) CRT, 32.1cm (13-inch) visible picture measured diagonally, 90° deflection |
| Horizontal resolution: | 1000TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC 100 to 240V 0.3 to 0.18A, 50/60Hz |
| Power consumption: | 25W |
| Dimensions: | 346(W) × 340(H) × 330(D)mm (13⅝ × 13½ × 13 inches) |
| Mass: | 11 kg (24 lb 4 oz) |
| **VIDEO** | |
| Line A: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| Line B: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| External sync: | Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination* |
| **AUDIO** | |
| Line A: | Loop-through Phono, -5dBu, high impedance |
| Line B: | Loop-through Phono, -5dBu, high impedance |

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* 75Ω termination is automatically set to OFF when connection is made to the OUT connector

## 14" PVM-145E (CCIR/EIA)

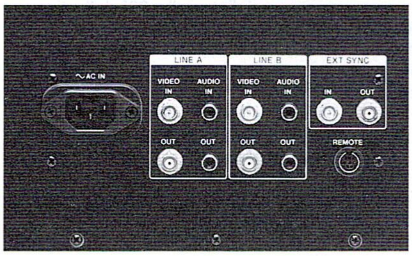
### Black & white monitor

•CCIR or EIA automatic selection •A high resolution of 1000TV lines at centre •Built-in speaker for audio monitoring •Accepts external sync •Rack mountable with the optional mounting bracket MB-502B and slide rail kit SLR-102

| | |
|---|---|
| Supplied accessories: | AC power cord, AC plug holders, Operation manual |
| Optional accessories: | Rack mounting bracket MB-502B<br>Slide rail kit SLR-102 |

### Specifications

| | |
|---|---|
| **General** | |
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Picture tube: | 34cm (14-inch) CRT, 32.1cm (13-inch) visible picture measured diagonally, 90° deflection |
| Horizontal resolution: | 1000TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC 100 to 240V 0.3 to 0.18A, 50/60Hz |
| Power consumption: | 25W |
| Dimensions: | 346(W) × 340(H) × 330(D)mm (13⅝ × 13½ × 13 inches) |
| Mass: | 11 kg (24 lb 4 oz) |
| **VIDEO** | |
| Line A: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| Line B: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| External sync: | Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination* |
| **AUDIO** | |
| Line A: | Loop-through Phono, -5dBu, high impedance |
| Line B: | Loop-through Phono, -5dBu, high impedance |



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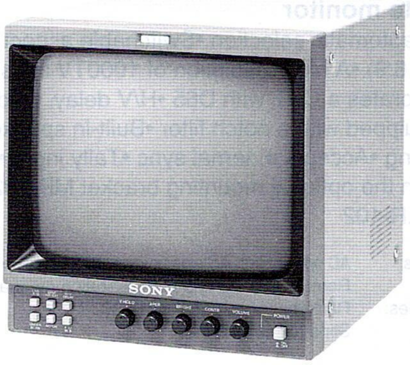
* 75Ω termination is automatically set to OFF when connection is made to the OUT connector

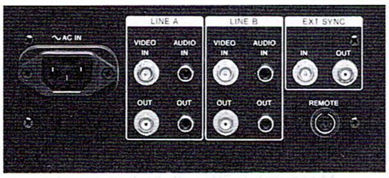
## 9" PVM-96E (CCIR/EIA)

### Black & white monitor

•CCIR/EIA automatic selection •Switchable aspect ratio (4:3 and 16:9) •A high resolution of 900TV lines at center •Incorporates a CRT with D65 •H/V delay, Underscan capability •Equipped with a notch filter •Built-in speaker for audio monitoring •Accepts external sync •Tally input •Rack mountable with a second PVM-96E or an optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

| | |
|---|---|
| Supplied accessories: | AC power cord, AC plug holders, Remote connector 8-pin, Operation manual |
| Optional accessories: | Rack mounting bracket MB-507<br>Blank panel MB-509 |





### Specifications

| | |
|---|---|
| **General** | |
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Picture tube: | 23.0cm (9-inch) CRT, 21.7cm (9-inch) visible picture measured diagonally, 90° deflection |
| Horizontal resolution: | 900TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC 100 to 240V 0.3 to 0.18A, 50/60Hz |
| Power consumption: | 23W |
| Dimensions: | 217(W) × 218(H) × 250(D)mm<br>(8⅝ × 8⅝ × 9⅞ inches) |
| Mass: | 5.5kg (12 lb 2 oz) |
| **VIDEO** | |
| Line A: | Loop-through BNC<br>1Vp-p, sync negative, Automatic 75Ω termination* |
| Line B: | Loop-through BNC<br>1Vp-p, sync negative, Automatic 75Ω termination* |
| External sync: | Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination* |
| **AUDIO** | |
| Line A: | Loop-through Phono, -5dBu, high impedance |
| Line B: | Loop-through Phono, -5dBu, high impedance |

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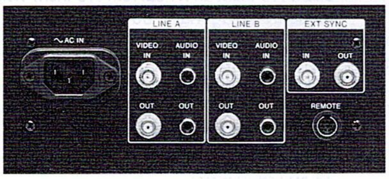
* 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 9" PVM-95E (CCIR/EIA)

### Black & white monitor

•CCIR/EIA automatic selection •A high resolution of 900TV lines at centre •Built-in speaker for audio monitoring •Accepts external sync •Rack mountable with a second PVM-95E or an optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

| | |
|---|---|
| Supplied accessories: | AC power cord, AC plug holders, Operation manual |
| Optional accessories: | Rack mounting bracket MB-507<br>Blank panel MB-509 |



### Specifications

| | |
|---|---|
| **General** | |
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Picture tube: | 23.0cm (9-inch) CRT, 21.7cm (9-inch) visible picture measured diagonally, 90° deflection |
| Horizontal resolution: | 900TV lines at centre |
| Audio power output: | Monaural, 0.5W with built-in speaker |
| Power requirements: | AC 100 to 240V 0.3 to 0.18A, 50/60Hz |
| Power consumption: | 23W |
| Dimensions: | 217(W) × 218(H) × 250(D)mm<br>(8⅝ × 8⅝ × 9⅞ inches) |
| Mass: | 5.5 kg (12 lb 2 oz) |
| **VIDEO** | |
| Line A: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| Line B: | Loop-through BNC, 1Vp-p, sync negative, Automatic 75Ω termination* |
| External sync: | Loop-through BNC, 1 to 4Vp-p negative, Automatic 75Ω termination* |
| **AUDIO** | |
| Line A: | Loop-through Phono, -5dBu, high impedance |
| Line B: | Loop-through Phono, -5dBu, high impedance |

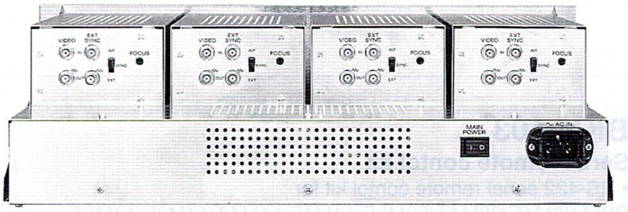
---

* 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 4" PVM-4B1E (CCIR/EIA)

### Black and White Video Monitor

•Ideal for use for camera monitoring in video studio and surveillance systems with multiple camera installations •Compatible with CCIR and EIA systems (automatically selected) •High resolution of 500TV lines •Stable picture reproduction with the high voltage regulation circuit •Accepts an external sync signal •Loop-through video and sync terminals with automatic 75Ω termination •Can be mounted in a standard 19-inch rack •Individual power and individual controls available



| | |
|---|---|
| Supplied accessories: | AC power cord (1)<br>AC plug holder (1set)<br>Operating instructions (1) |

### Specifications

**General**

| | |
|---|---|
| System: | CCIR 625 lines/50 fields, EIA 525 lines/60 fields (automatically selected) |
| Frequency response: | 10MHz (-3dB) |
| Power requirements: | AC 100 to 240V*, 50/60Hz |
| Power consumption: | 59W |
| Dimensions: | 483 (W) × 133 (H) × 356 (D)mm<br>(19⅛ × 5¼ × 14⅛inches) |
| Mass: | 11.7 kg (25lb 13oz) |
| Operating temperature: | 0 to 35°C (32 to 95°F) |
| Operating humidity: | 0 to 90% |

**CRT performance**

| | |
|---|---|
| CRT type: | 10cm (4-inch) CRT, visible picture size 9.4cm (3 ¾inch) (min.) measured diagonally, 50° deflection |
| Resolution: | 500TV lines |

**Picture performance**

| | |
|---|---|
| Normal scan: | 7% overscan |
| Linearity: | H: less than 8%, V: less than 7% |

**Input performance**

| | |
|---|---|
| VIDEO: | Loop-through BNC<br>1Vp-p±6dB, sync negative, automatic 75Ω termination |
| EXT SYNC: | Loop-through BNC<br>0.5 to 4Vp-p, sync negative, automatic 75Ω termination |

**Regulation Compliance:**

CE, LVD (TÜV)

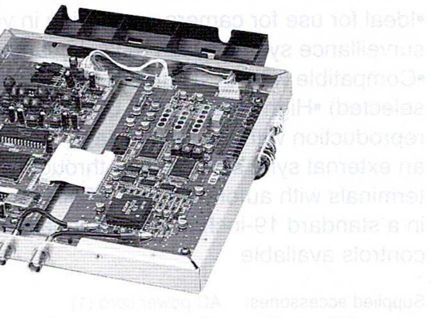
*UL listed for 120V operation.

## BKM-101C/102

### Component serial digital interface kit 101C (video)/ 102(audio)

- Component serial digital interface for PVM-20M4E/20M4A/20M2E/14M4E/14M4A/14M2E/14M2A

Mass: BKM-101C: 820g (1 lb 13 oz)
870g (1 lb 15 oz)
(with installation kit for PVM-20M4E/20M4A/20M2E)
BKM-102: 130 g (4.6oz)



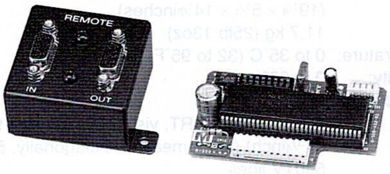
BKM-101C/102

## BKM-103

### Serial remote contol kit

- RS-422 serial remote contol kit for PVM-20M4E/20M4A/20M2E/14M4E/14M4A/14M2E/14M2A

Mass: 157 g (5.5 oz)

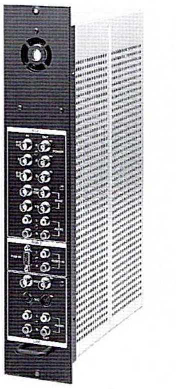


## BKM-201SC

### Scan Converter Adaptor

- Scan converter adaptor for PGM-200R1E/200R1A
- Capable of converting signals with fH 15.6 to 85kHz into VGA

| Format Conversion | |
|---|---|
| Capture range: | fH 15.6kHz to 85kHz, fV 50Hz to 120Hz |
| Sampling rate: | 17.9 to 40 MHz offset phase max. |
| Output pixel clock: | 25.2 to 38MHz max. |
| Line doubler: | Line doubled vertically for each field |
| Dimensions: | 88.0(W) × 439.0(H) × 254.6(D) mm<br>(3½ × 17⅜ × 10⅛ inches) |
| Mass: | Approx. 2.35 kg (5lb 3oz) |

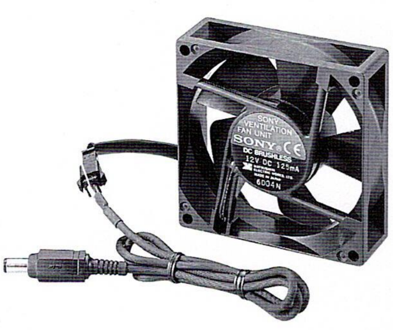


## BKM-202FN

### Cooling fan unit

- Cooling fan unit for PGM-200R1E/200R1A, PGM-200R2E
- Prevents heat build up inside the cabinet by powerfully ventilating the air out of the monitor
- DC 12V supplied from the monitor

| | |
|---|---|
| Dimensions: | 80(W) × 80(H) × 25(D) mm<br>(3¼ × 3 ¼ × 1 inches) |
| Mass: | 125 g (4 oz) |



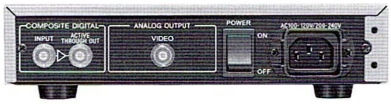
## DMIF-2000

**Composite serial digital interface**

- Composite serial digital interface for PVM series monitors

Dimensions: 212(W) × 44(H) × 280(D) mm
(8⅜ × 1¾ × 11⅛ inches)
Mass: 2 kg (4lb 6 oz)

SONY
DIGITAL MONITOR INTERFACE UNIT DMIF-2000


COMPOSITE DIGITAL
INPUT
ACTIVE THROUGH OUT
ANALOG OUTPUT
VIDEO
POWER
ON
OFF
AC100-120V/200-240V

## MB-502B

**Mounting bracket**

- Bracket for PVM-14M4E/14M4A/14M2E/14M2A/14M2MDE/14M2MDA/14N2E/14N2A/14N1E/14N1A/14N1MDE/146E/145E (used with SLR-102)

Dimensions: 483(W) × 355(H) × 302(D) mm
(19⅛ × 14 × 12 inches)
Mass: 3.8 kg (8 lb 6 oz)

## MB-507

**Mounting bracket**

- Bracket for PVM-9044QM/9043MD/9041QM/9040ME/9040MD/6041QM/96E/95E

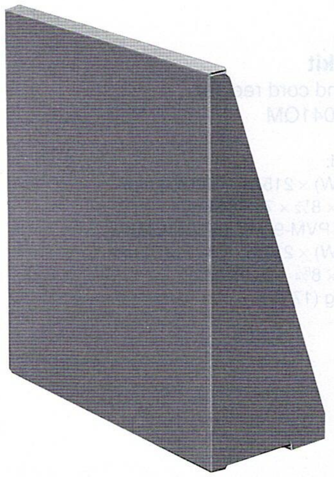
Dimensions: 482(W) × 221(H) × 395(D) mm
(19 × 8¾ × 15⅝ inches)
Mass: 2.6 kg (5 lb 11 oz)

## MB-508

**Mounting attachment**

- Blank panel for PVM-6041QM

Dimensions: 146(W) × 168.5(H) × 63(D) mm
(5¾ × 6¾ × 2½ inches)
Mass: 0.2 kg (7 oz)

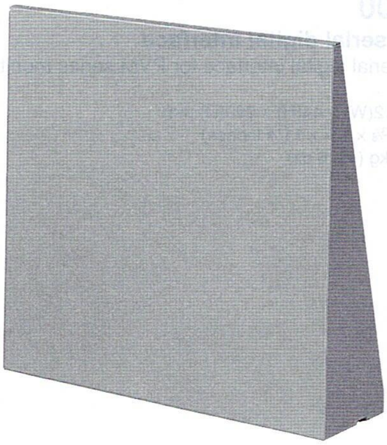


## MB-509

### Mounting attachment

•Blank panel for PVM-9044QM/9043MD/9041QM/9040ME/9040MD/96E/95E

Dimensions: 217(W) × 212.5(H) × 63(D) mm
(8⅝ × 8⅜ × 2½ inches)
Mass: 0.4 kg (14 oz)

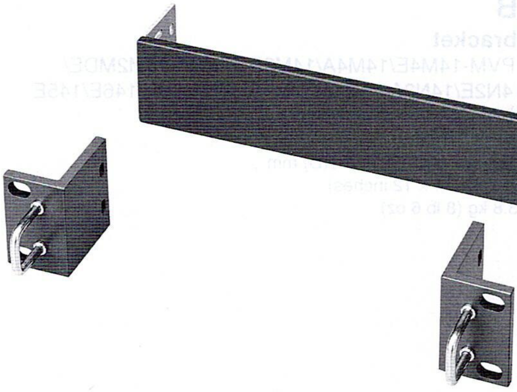


## MB-510

### Mounting bracket

•Bracket for DMIF-2000

Dimensions (with 2 DMIF-2000):
482(W) × 44(H) × 280(D) mm
(19 × 1¾ × 11⅛ inches)
Mass: 0.3 kg (10 oz)

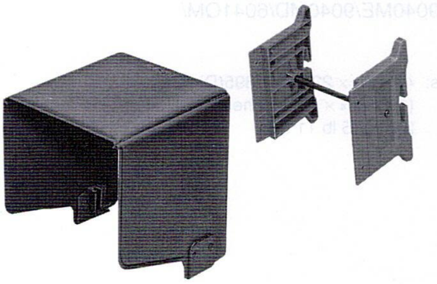


## VF-504

### Monitor ENG kit

•Monitor hood and cord reel for PVM-6041QM

Dimensions: Hood:
159(W) × 172(H) × 160(D) mm
(6⅜ × 6⅞ × 6⅜ inches)
(with PVM-6041QM):
159(W) × 178(H) × 567.5(D) mm
(6⅜ × 7⅛ × 22⅜ inches)
Mass: 0.4 kg (14 oz)

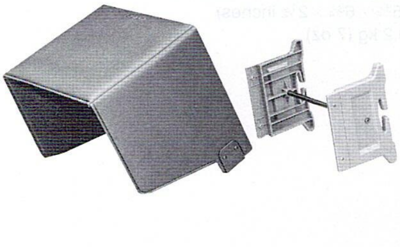


## VF-505

### Monitor ENG kit

•Monitor hood and cord reel for PVM-9044QM/9041QM

Dimensions: Hood:
230(W) × 215(H) × 200(D) mm
(9⅛ × 8½ × 7⅞ inches)
(with PVM-9044QM/9041QM):
230(W) × 222(H) × 607.5(D) mm
(9⅛ × 8¾ × 24 inches)
Mass: 0.5 kg (17 oz)



## DCC-XLR4

**Car battery cord**

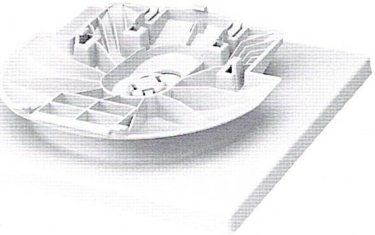
- Car battery cord for PVM-9044QM/9041QM/6041QM

## SU-556

**Monitor stand**

•Stand for PGM-100P1MD

Dimensions: 240 (W) × 57 (H) × 238 (D) mm
(9½ × 2¼ × 9⅜ inches)
Mass: Approx. 450 g (1 lb)



## SS-X7A

**Speaker system**

•High quality stereo sound by two-way bass-reflex speaker system with cone-type woofer and tweeter

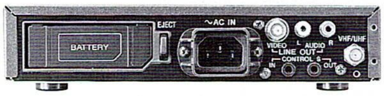
Dimensions: 183(W) × 280(H) × 90(D)mm
(7¼ × 11⅛ × 3⅝ inches)
Mass: Approx. 1.9 kg per speaker
(4 lb 3oz)

## TU-1040E

**TV tuner unit**

•TV tuner unit compatible with various TV broadcast systems: B/G/H, L, I and D/K

Dimensions: 212 (W) × 49.3 (H) × 361 (D)mm
(8⅜ × 2 × 14¼inches)
Mass: 2.05 kg (4 lb 8 oz)


BATTERY
EJECT
~AC IN
VIDEO
AUDIO
LINE OUT
CONTROL S
IN
OUT
VHF/UHF

## SLR-102/103A

**Slide rail kit**

- SLR-102 for PVM-14M4E/14M4A/14M2E/14M2A/14M2MDE/14M2MDA/14N2E/14N2A/14N1E/14N1A/146E/145E/136/137/135 (used with MB-502B)
- SLR-103A for PVM-20M4E/20M4A/20M2E/20M2MDE/20M2MDA/20N2E/20N2A/ 20N1E/20N1A

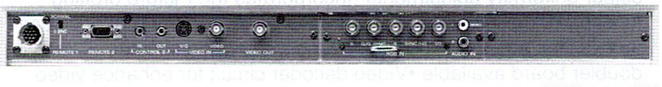
SLR-102

SLR-103A

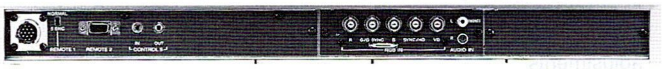
## VPH-1292QM/1292QMG

(PAL/NTSC/SECAM/NTSC$_{4.43}$)

•Multiscan capability: horizontal 15kHz to 135kHz, vertical 38Hz to 150Hz •Incorporates new, high resolution 9-inch electromagnetic focus CRTs •Incorporates a Universal Optical Coupling •Remarkable light output of 225lm (ANSI lumen[*1]), 1000lm (peak white), 300lm (all white) •High resolution of 700 TV lines/2000 × 1600 pixels (RGB in at fH:94kHz, fV:60Hz) •Wide RGB bandwidth of 120MHz •Registration adjustment at 21 points on the screen for accurate registration •HACC lens for superior and stable picture performance •Video decoder circuit for enhanced video picture quality[*2] •Responds to both analogue/digital RGB signals •Supplied wired/wireless remote control unit RM-PJ1292 controls all the projector functions such as set-up adjustments and operational functions •Various optional accessories available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 90-inch to 300-inch in size with simple adjustments



VPH-1292QM



VPH-1292QMG

| | |
|---|---|
| Supplied accessories: | Interface board: IFB-11<br>Wired/wireless remote control unit: RM-PJ1292<br>Remote control cable for RM-PJ1292 (15m)<br>AA size battery (for RM-PJ1292) × 3<br>Hexagon wrench<br>AC power cord<br>Operation manual |
| Optional accessories: | Interface board:<br>IFB-11/20/30/101/1000/1200/1301/3000[*3]<br>Signal interface switcher: PC-1271M<br>Interface unit: IFU-1271M<br>Signal interface cables: SIC-10/20A/20C/21/22<br>Multi-cable[*4]:<br>CCQ-BRS cable (14-14pin: 2/5/10/25/50m)<br>SIC-M cable (14-14pin: 1/5/15/25/50m)<br>Infrared remote control unit: RM-1270S<br>Infrared remote control receiver: RM-PJ10<br>Projection lens: VPHL-9270<br>Suspension support: PSS-10/1270<br>100-inch flat screen[*4]: VPS-100FH<br>120-inch flat screen[*4]: VPS-120FH |

## Specification

### General

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$ automatically selected |
| Brightness: | ANSI[*1]: 225lm (fH: 135kHz, fV: 50Hz)<br>130lm (fH: 15kHz, fV: 60Hz)<br>Colour temperature: 6500°K<br>Peak white: 1000lm<br>All white: 300lm |
| RGB bandwidth: | 120MHz (-3dB) |
| Resolution: | 700TV lines (video)<br>2000 × 1600 pixels<br>(RGB, measured at fH: 94kHz, fV: 60Hz) |
| Scanning frequency: | Horizontal: 15 to 135kHz<br>Vertical: 38 to 150Hz |
| Test signals: | Cross hair, Hatch (coarse), Hatch, Hatch (invert), Dot pattern, Window, H pattern, H pattern (invert), All white, Pluge |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Max. 850W |
| Heat dissipation: | 2900.6BTU |
| Mass: | 92 kg (202 lb 13 oz) |
| Operating temperature: | 0 to 40° C (14 to 104°F) |
| Operating humidity: | 35 to 85% |

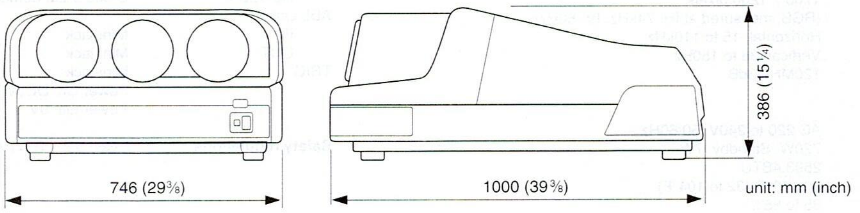
### Inputs

| | |
|---|---|
| Video: | |
| Composite[*4]: | Loop-through BNC |
| (For VPH-1292QM) | 1Vp-p, sync negative, Automatic 75Ω termination[*6] |
| Y/C[*4]: | Mini DIN 4-pin |
| (For VPH-1292QM) | Y (luminance): 1Vp-p, sync negative, 75Ω<br>C (chrominance): 0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω |
| Input A: (supplied with an IFB-11) | |
| R/B: | BNC<br>0.7Vp-p, 75Ω |
| G/Sync on G: | BNC<br>Non-composite 0.7Vp-p, 75Ω,<br>Composite 1Vp-p, sync negative, 75Ω |
| Sync: | Composite sync: BNC<br>Analogue level:<br>0.6 to 8Vp-p, high impedance, positive/negative<br>TTL level:<br>Positive/negative<br>HD/VD separate: BNC<br>Analogue level:<br>0.6 to 8Vp-p, high impedance, positive/negative<br>TTL level:<br>Positive/negative |
| Audio: | not applicable |
| Input B: (open for an optional IFB series input module) | |
| Control S: | Loop-through Mini jack |
| Remote 1: | 14-pin (from the PC-1271M) |

### Outputs

| | |
|---|---|
| Remote 2: | D sub 9-pin (RS-422 port) |

**Dimensions**



unit: mm (inch)

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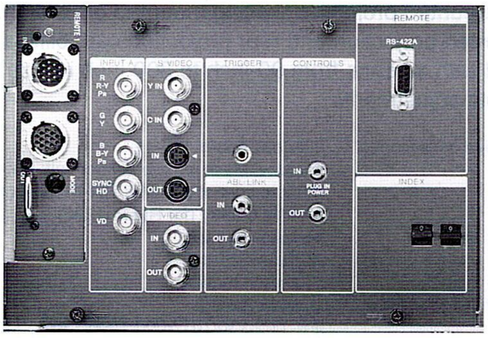
*1 ANSI is a measuring method of American National Standard ANSI IT7.215.
*2 Applicable for VPH-1292QM only.
*3 The IFB-3000 should be installed in the PC-1271M.
*4 Some items are not available in some areas. For details, please consult your nearest Sony office.
*5 The Y/C input has priority over the Video input.
*6 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## VPH-G70QM/G70QMG

(PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

•Multiscan capability: horizontal 15kHz to 110kHz, vertical 38Hz to 150Hz •Incorporates newly developed 8-inch electromagnetic focus CRTs •Incorporates an universal optical coupling •Remarkable light output of ANSI[*1] lumen (colour temperature: 6500°K): 240lm (fH: 110kHz, fV: 60Hz)/ 200lm (fH: 15kHz, fV: 60Hz), Peak white: 1200lm •High resolution of 700TV lines (video)/1100 TV lines (HDTV[*2])/ 1700 × 1200 pixels (RGB in at fH: 74kHz, fV: 60Hz) •Wide RGB bandwidth of 120MHz •New hybrid HACC lens for superb, stable picture performance •Precise registration with the Key/Pin balance mode and 25-point zone adjustment •Input memory and Video memory available for facilitated set up •Independent brightness and colour uniformity adjustments •Incorporates the Picture orbiting function •Simplified operation for multi-projection applications such as ABL link and Index operation functions •Optional internal line-doubler board available •Video decoder circuit for enhance video picture quality •Various optional accessories available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 60 to 300-inch in size with simple adjustments



| | |
|---|---|
| Supplied accessories: | Remote commander RM-PJ1000<br>Remote commander cable (15m)<br>Adjusting plate<br>AA size (R6) battery × 3<br>AC power cord<br>Operation manual<br>Installation manual |
| Optional accessories: | Interface board IFB-12/20/21/1000/1301/G70QMG[*3][*4]<br>Signal interface cable SIC-10/20A/20C/21/22<br>Multi-cable[*3]<br>CCQ-BRS cable (14-14pin: 2/5/10/25/50m)<br>SIC-M cable (14-14pin: 1/5/15/25/50m)<br>Signal interface switcher PC-1271M<br>Extension board EXB-DS10 (internal line-doubler board)<br>Interface unit IFU-1271M[*3]<br>Suspension support PSS-70<br>Suspension support PSS-10<br>Remote commander RM-PJM800<br>Infrared remote control receiver RM-PJ10<br>Mouse receiver RM-PJ21<br>Signal adapter ADP-10<br>(HD D-sub 15-pin to D-sub 9-pin for SIC cable)<br>Signal adapter ADP-20 (Macintosh® to VGA)<br>Monitor cable SMF-400 (HD D-sub 15-pin to 5BNC)<br>Monitor cable SMF-401 (HD D-sub 15-pin to HD D-sub 15-pin)<br>9-pin remote cable RCC-5G/10G/30G<br>(D-sub 9-pin to D-sub 9-pin for RS-422A)<br>100-inch flat screen VPS-100FH<br>120-inch flat screen VPS-120FH |

## Specifications

### Optical

| | |
|---|---|
| Projection system: | 3 picture tubes, 3 lenses, direct projection system |
| Picture tube: | 8-inch (phosphor size 6-inch) high luminance, electromagnetic focus tubes |
| Projection lens: | Double focus, F1.1/135mm |
| Screen coverage: | 60 to 300-inch measured diagonally, factory preset to 120-inch |
| Light output: | ANSI[*1]: 240lm (fH: 110kHz, fV: 50Hz, 6500K)<br>200lm (fH: 15kHz, fV: 60Hz, 6500K)<br>1200lm (peak white)<br>320lm (all white) |
| Throwing distance: | 60-inch 1668mm (5 ft 5$^{21}/_{32}$ inches)<br>70-inch 1921mm (6 ft 3 $^{5}/_{8}$ inches)<br>100-inch 2689mm (8 ft 9$^{7}/_{8}$ inches)<br>120-inch 3200mm (10 ft 5$^{31}/_{32}$ inches)<br>150-inch 3972mm (13 ft $^{3}/_{8}$ inches)<br>200-inch 5254mm (17 ft 2$^{27}/_{32}$ inches)<br>250-inch 6539mm (21 ft 5$^{7}/_{16}$ inches)<br>300-inch 7831mm (25 ft 8$^{5}/_{16}$ inches) |

### Signals

| | |
|---|---|
| Colour system: | PAL, NTSC, SECAM, NTSC$_{4.43}$, PAL-M |
| Resolution: | 700TV lines (video)<br>1100TV lines (HDTV)<br>1700 × 1200 pixels<br>(RGB, measured at fH: 74kHz, fV: 60Hz) |
| Scanning frequency: | Horizontal: 15 to 110kHz<br>Vertical: 38 to 150Hz |
| RGB bandwidth: | 120MHz-3dB |

### General

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 720W, Standby: 7W |
| Heat dissipation: | 2593.4BTU |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Operating humidity: | 35 to 85% |
| Storage temperature: | -20 to 60°C (-4 to 140°F) |
| Storage humidity: | 10 to 90% |
| Dimensions: | 695(W) × 358(H) × 948(D) mm<br>(27$^{3}/_{8}$ × 14$^{1}/_{8}$ × 37$^{5}/_{16}$ inches) |
| Mass: | Approx. 83 kg (183 lb) |

### Inputs/Outputs

| | |
|---|---|
| Video[*5]: | |
| Composite: | Loop-through BNC<br>1Vp-p±2dB sync negative, 75Ω |
| Y IN: | 1Vp-p±2dB sync negative, 75Ω |
| C IN: | Burst 0.286Vp-p±2dB (NTSC),<br>75Ω or 0.3Vp-p±2dB (PAL), 75Ω |
| Y/C IN: | Loop-through Mini DIN 4-pin |
| Y: | 1Vp-p±2dB sync negative, 75Ω |
| C: | Burst 0.286Vp-p±2dB (NTSC),<br>75Ω or 0.3Vp-p±2dB (PAL), 75Ω |
| Input A: | BNC × 5 |
| Analog RGB/Component: | |
| R/R-Y: | 0.7Vp-p±2dB positive, 75Ω |
| G: | 0.7Vp-p±2dB positive, 75Ω, |
| G with sync/Y: | 1Vp-p±2dB sync negative, 75Ω |
| B/B-Y: | 0.7Vp-p±2dB positive, 75Ω |
| Sync/HD: | Composite sync: 0.6 to 8Vp-p, high impedance, positive/negative<br>Horizontal sync: 0.6 to 8Vp-p, high impedance, positive/negative |
| VD: | |
| Vertical sync: | 0.6 to 8Vp-p, high impedance, positive/negative |
| HDTV[*2] (Y/PB/PR): | |
| Y: | 1Vp-p±2dB, 75Ω<br>Tri-level sync: ±0.3Vp-p, Bi-level sync: 0.3Vp-p |
| PB/PR: | ±0.35Vp-p±2dB, 75Ω |
| HDTV[*2] (GBR): | |
| G with sync: | 1Vp-p±2dB, 75Ω<br>Tri-level sync: ±0.3Vp-p, Bi-level sync: 0.3Vp-p |
| B/R: | 0.7Vp-p±2dB, 75Ω |
| Input B: | |
| Supplied with an IFB-40: | 14-pin multi connector (input: male, output: female) |
| CONTROL S | |
| IN/PLUG IN POWER: | Stereo mini-jack<br>5Vp-p, plug in power DC5V, maximum output 60mA |
| OUT: | Stereo mini-jack<br>5Vp-p |
| REMOTE | |
| RS-422A: | D-sub 9-pin (female) |
| ABL Link | |
| IN: | Mini-jack |
| OUT: | Mini-jack |
| TRIG: | Mini-jack<br>Power On: DC5V, output impedance 4.7kΩ<br>Power Off: 0V |

| | |
|---|---|
| **Safety regulations** | EN60 950 (TÜV), CE, PTB, C-Tick Mark |

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[*1] ANSI is a measuring method of American National Standard ANSI IT 7.215.

[*2] HDTV: 1125/60 interlaced HDTV studio standard system.

[*3] Some items are not available in some areas. For further details, please consult your nearest Sony office.

[*4] Applicable for VPH-Q70QMG only.

[*5] Applicable for VPH-Q70QM only.

## VPH-D50QM (PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

•Multiscan capability: horizontal 15kHz to 64kHz, vertical 38Hz to 150Hz •Incorporates newly developed 7-inch static focus CRTs •Incorporates an universal air coupling •Remarkable light output of ANSI[*1] lumen (colour temperature: 6500°K): 160lm (fH: 64kHz, fV: 50Hz)/130lm (fH: 15kHz, fV: 60Hz), Peak white: 800lm •High resolution of 700TV lines (video)/1000 TV lines (HDTV[*2])/1280 x 1024 pixels (RGB in at fH: 64kHz, fV: 60Hz) •Wide RGB bandwidth of 75MHz •Precise registration with the Key/Pin balance mode •Input memory and Video memory available for facilitated set up •Video decoder circuit for enhance video picture quality •Incorporates the Picture orbiting function •Simplified operation for multi-projection applications such as ABL link and Index operation functions •Optional internal line-doubler board available •Various optional accessories available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 60 to 250-inch in size with simple adjustments

| | |
|---|---|
| Supplied accessories: | Remote commander RM-PJ1000<br>Remote commander cable (15m)<br>Adjusting plate<br>AA size (R6) battery × 3<br>AC power cord<br>Operation manual<br>Installation manual |
| Optional accessories: | Interface board IFB-12/20/21/1000/1301[*3]<br>Signal interface cable SIC-10/20A/20C/21/22<br>Multi-cable[*3]<br>CCQ-BRS cable (14-14pin: 2/5/10/25/50m)<br>SIC-M cable (14-14pin: 1/5/15/25/50m)<br>Signal interface switcher PC-1271M<br>Extension board EXB-DS10 (internal line-doubler board)<br>Interface unit IFU-1271M[*3]<br>Suspension support PSS-70<br>Suspension support PSS-10<br>Remote commander RM-PJM800<br>Infrared remote control receiver RM-PJ10<br>Mouse receiver RM-PJ21<br>Signal adapter ADP-10<br>(HD D-sub 15-pin to D-sub 9-pin for SIC cable)<br>Signal adapter ADP-20 (Macintosh® to VGA)<br>Monitor cable SMF-400 (HD D-sub 15-pin to 5BNC)<br>Monitor cable SMF-401<br>(HD D-sub 15-pin to HD D-sub 15-pin)<br>9-pin remote cable RCC-5G/10G/30G<br>(D-sub 9-pin to D-sub 9-pin for RS-422A)<br>100-inch flat screen VPS-100FH<br>120-inch flat screen VPS-120FH |

### Specifications

**Optical**

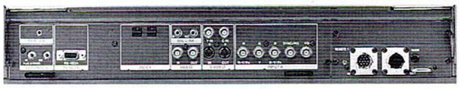
| | |
|---|---|
| Projection system: | 3 picture tubes, 3 lenses, direct projection system |
| Picture tube: | 7-inch (phosphor size 5.5-inch) static focus CRT |
| Projection lens: | Double focus, F1.0/135mm |
| Screen coverage: | 60 to 250-inch measured diagonally, factory preset to 120-inch |
| Light output: | ANSI[*1]: 160lm (fH: 64kHz, fV: 50Hz, 6500K)<br>130lm (fH: 15kHz, fV: 60Hz, 6500K)<br>800lm (peak white)<br>200lm (all white) |
| Throw distance: | 60-inch 1902mm (6 ft 2⅞ inches)<br>70-inch 2179mm (7 ft 1 25/32 inches)<br>100-inch 3016mm (9 ft 10¾ inches)<br>120-inch 3571mm (11 ft 8 19/32 inches)<br>150-inch 4424mm (14 ft 6 3/16 inches)<br>200-inch 5844mm (19 ft 2 3/32 inches)<br>250-inch 7257mm (23 ft 9 23/32 inches) |

**Signals**

| | |
|---|---|
| Colour system: | PAL, NTSC, SECAM, NTSC$_{4.43}$, PAL-M |
| Resolution: | 700TV lines (video)<br>1000TV lines (HDTV)<br>1280 × 1024 pixels (RGB, measured at fH: 64kHz, fV: 60Hz) |
| Scanning frequency: | Horizontal: 15 to 64kHz<br>Vertical: 38 to 150Hz |
| RGB bandwidth: | 75MHz-3dB |

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 450W, Standby: 7W |
| Heat dissipation: | 1535.7BTU |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Operating humidity: | 35 to 85% |
| Storage temperature: | -20 to 60°C (-4 to 140°F) |
| Storage humidity: | 10 to 90% |



| | |
|---|---|
| Dimensions: | 603(W) × 345(H) × 671(D)mm<br>(23¾ × 13⅝ × 26½ inches) |
| Mass: | Approx. 54 kg (119 lb 1 oz) |

**Inputs/Outputs**

| | |
|---|---|
| Video: | Loop-through BNC<br>1Vp-p±2dB sync negative, 75Ω |
| S Video: | |
| Y IN: | BNC<br>1Vp-p±2dB sync negative, 75Ω |
| C IN: | BNC<br>Burst 0.286Vp-p±2dB (NTSC), 75Ω<br>0.3Vp-p±2dB (PAL), 75Ω |
| Y/C IN: | Loop-through mini DIN 4-pin<br>Y (luminance): 1Vp-p±2dB sync negative, 75Ω<br>C (chrominance): Burst 0.286±2dB (NTSC), 75Ω<br>0.3±2dB (PAL), 75Ω |
| Input A: | BNC × 5 |
| Analog RGB/Component: | |
| R/R-Y: | 0.7Vp-p±2dB positive, 75Ω |
| G: | 0.7Vp-p±2dB positive, 75Ω, |
| G with sync/Y: | 1Vp-p±2dB sync negative, 75Ω |
| B/B-Y: | 0.7Vp-p±2dB positive, 75Ω |
| Sync/HD: | Composite sync: 0.6 to 8Vp-p, high impedance, positive/negative<br>Horizontal sync: 0.6 to 8Vp-p, high impedance, positive/negative |
| VD: | Vertical sync: 0.6 to 8Vp-p, high impedance, positive/negative |
| HDTV[*2] (Y/PB/PR): | |
| Y: | 1Vp-p±2dB, 75Ω<br>Tri-level sync: ±0.3Vp-p, Bi-level sync: 0.3Vp-p |
| PB/PR: | (0.35Vp-p±2dB, 75Ω |
| HDTV [*2](GBR): | |
| G with sync: | 1Vp-p±2dB, 75Ω<br>Tri-level sync: ±0.3Vp-p, Bi-level sync: 0.3Vp-p |
| B/R: | 0.7Vp-p±2dB, 75Ω |
| Input B: | Supplied with an IFB-40: 14-pin multi connector (input: male, output: female) |
| CONTROL S | |
| IN/PLUG IN POWER: | Stereo mini-jack<br>5Vp-p, plug in power DC5V, maximum output 60mA |
| OUT: | Stereo mini-jack, 5Vp-p |
| REMOTE | |
| RS-422A: | D-sub 9 pin (female) |
| ABL Link | |
| IN: | Stereo mini-jack |
| OUT: | Stereo mini-jack |
| TRIG: | Mini-jack<br>Power On: DC5V, output impedance 4.7kΩ<br>Power Off: 0V |

| | |
|---|---|
| **Safety regulations** | EN60 950 (TÜV), CE, PTB, C-Tick Mark |

---

[*1] ANSI is a measuring method of American National Standard ANSI IT 7.215.
[*2] HDTV: 1125/60 interlaced HDTV studio standard system.
[*3] Some items are not available in some areas. For further details, please consult your nearest Sony office.

## RVP-6010QM (PAL/NTSC/SECAM/$\text{NTSC}_{4.43}$)

•60-inch multiscan rear projection unit •Multiscan capability: horizontal 15 to 93kHz, vertical 38 to 150Hz •High contrast images with Optical Coupling CRT •Employs a two-layer screen (Lenticular/Fresnel) for a wide vertical viewing angle •A high resolution of 1400 × 1120 pixels (RGB input)/700TV lines (Composite video input) •Heavy duty casters with brakes for high mobility •Supplied wired/wireless remote control RM-PJ1292 for full adjustments and operation of the projector •Optional IFB series interface boards, IFU-1271M interface unit, the SIC series signal interface cables and the PC-1271M signal interface switcher expands the system versatility

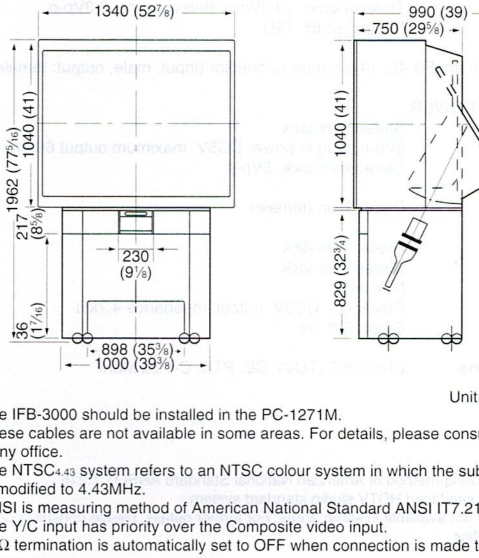
| | |
|---|---|
| Supplied accessories: | Interface board IFB-11<br>Remote commander RM-PJ1292<br>Remote control cable (15 m)<br>Extension board<br>AC power cord |
| Optional accessories: | Interface Board: IFB-11/20/101/1000/1200/1301/3000[*1]<br>Signal interface switcher: PC-1271M<br>Interface unit: IFU-1271M<br>Signal interface cables: SIC-10/20A/20C/21/22<br>Multi cable[*2]: CCQ-BRS cables (14-14pin, 2/5/10/25/50 m)<br>SIC-M cable (14-14pin, 1/5/15/25/50 m)<br>Infrared remote control unit RM-1270S (Supplied with PC-1271M)<br>Remote control receiver RM-PJ10 |

## Specifications

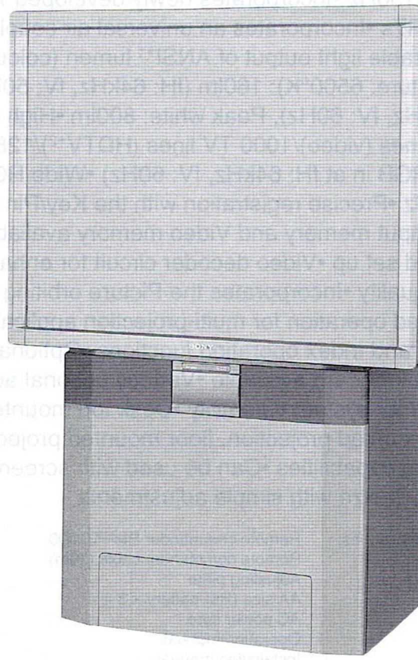
### General

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/$\text{NTSC}_{4.43}$[*3] (automatically selected) |
| Picture tube: | 7-inch (6.2 inch V) high-luminance monochrome optical coupled with coolant sealed |
| Projection lens: | New High performance multi-coated HACC lens, F1.1/116 mm |
| Projection picture size: | 60-inch: 1219(W) × 914(H) mm (4.0 × 3.0 ft) |
| Screen: | Black stripe two-layer (lenticular/ fresnel) |
| Brightness: | ANSI[*4]: 100cd/$m^2$ (100nits) (fH: 93kHz, fV: 50Hz)<br>90cd/$m^2$ (90nits) (fH: 15kHz, fV: 60Hz)<br>Colour temperature: 6500°K<br>Peak white: 150ft-L (514cd/$m^2$)<br>All white: 40ft-L (137cd/$m^2$) |
| Contrast ratio: | 70:1 |
| Viewing angle: | Horizontal: ±57°<br>Vertical: ±30° |
| Scanning frequency: | Horizontal: 15 to 93kHz<br>Vertical: 38 to 150Hz |

### Dimensions



Unit: mm (inch)



| | |
|---|---|
| Resolution: | 700TV lines (VIDEO IN)<br>1400 × 1120 pixels (RGB in, measured at fH: 69kHz, fV: 60Hz) |
| Speakers: | Max. 10W+10W, stereo |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 680W max. |
| Mass: | 200 kg (440 lb 15 oz) |

### Input

| | |
|---|---|
| Video | |
| Composite[*5] | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination[*6] |
| Y/C[*5] | Mini DIN 4-pin<br>Y (Luminance signal): 1Vp-p, sync negative, 75Ω<br>C (Chrominance signal): 0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω |
| Audio | Phono<br>-5dBu, impedance more than 47kΩ |
| INPUT A:(Supplied with IFB-11) | |
| R/B: | BNC 0.7Vp-p, positive, 75Ω |
| G/sync on G: | BNC 0.7Vp-p, positive, 75Ω (Non-composite) or 1Vp-p, sync negative, 75Ω (Composite) |
| Sync: | Composite sync: BNC<br>Analogue level: 0.6 to 8Vp-p, high impedance, positive/negative<br>TTL level: positive/negative<br>HD/VD separate: BNC<br>Analogue level: 0.6 to 8Vp-p, high impedance, positive/negative<br>TTL level: positive/negative |
| Audio: | Phono:<br>-5dBu, impedance more than 47kΩ<br>stereo or monaural selectable |
| INPUT B:(Open for optional interface board) | |

SPEAKER SW
AUDIO OUT (VARIABLE)
ON
OFF
R
L

---

[*1] The IFB-3000 should be installed in the PC-1271M.

[*2] These cables are not available in some areas. For details, please consult your nearest Sony office.

[*3] The $\text{NTSC}_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.

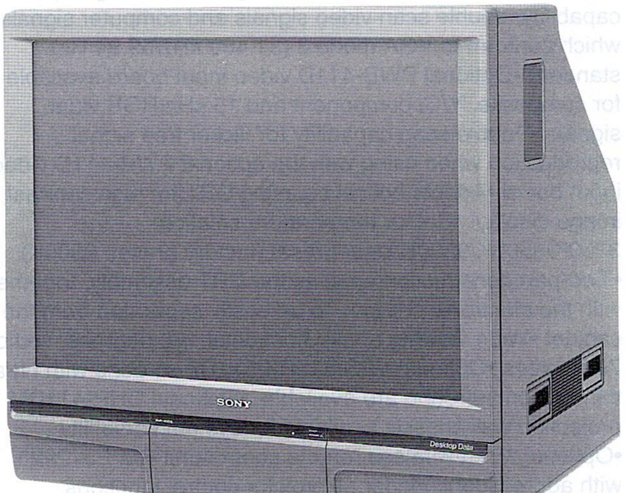
[*4] ANSI is measuring method of American National Standard ANSI IT7.215.

[*5] The Y/C input has priority over the Composite video input.

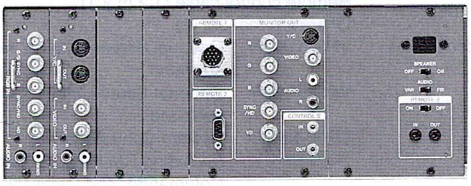
[*6] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## RVP-4015QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

•40-inch multiscan rear projector unit for extremely bright image projection •Multiscan capability: horizontal 15 to 85kHz, vertical 38 to 150Hz •Adopts Optical Coupling CRT for high contrast image display •Wide viewing angle •A high resolution of 800 × 800 dots (RGB)/700TV lines (composite) •Registration adjustment at 21 points on the screen for accurate registration •Incorporates handles for mobility •User-friendly functions when using the projector alone or in multiples •Supplied wired/wireless remote control RM-PJ4010 for full adjustments and operation of the projector •RS-422 serial remote control capability •Optional IFB series interface boards, IFU-1271M interface unit, SIC series signal interface cables and PC-1271M signal interface switcher available for system versatility



| | |
|---|---|
| Supplied accessories: | Interface board: IFB-11/1000<br>Remote commander: RM-PJ4010<br>Remote control cable: (15 m)(×2)<br>AC power cord |
| Optional accessories: | Interface Board: IFB-11/20/101/1000/1200/1301/3000[*1]<br>Signal Interface Switcher: PC-1271M<br>Interface unit: IFU-1271M<br>Signal Interface Cable: SIC-10/20A/20C/21/22<br>Multi cable[*2]: CCQ-BRS Cable (14-14pin, 2/5/10/25/50 m)<br>SIC-M Cable (14-14pin, 1/5/15/25/50 m) |



### Specifications

**General**

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$[*3] (automatically selected) |
| Picture tube: | 7-inch (5.5V) high luminance monochrome optical coupled with coolant sealed |
| Projector lens: | High performance multi-coated HACC lens, F1.0/96 mm |
| Projection picture size: | 40-inch: 813(W) × 610(H) mm(2.7 × 2ft) |
| Screen: | 0.78 mm pitch, Black stripe, (lenticular/fresnel/non-glare (cytop) |
| Brightness: | ANSI[*4]: 73cd/m$^2$ (73nits) (fH: 85kHz, fV: 50Hz)<br>64cd/m$^2$ (64nits) (fH: 15kHz, fV: 60Hz)<br>Colour temperature: 6500°K<br>Peak white: 100ft-L (343cd/m$^2$)<br>All white: 25ft-L (86cd/m$^2$) |
| Viewing angle: | Horizontal: ±80°<br>Vertical: ±60° |
| Scanning frequency: | Horizontal: 15 to 85kHz<br>Vertical 38 to 150Hz |
| Horizontal Resolution: | 700 TV lines (VIDEO IN)<br>800 × 800 pixels<br>(RGB in measured at fH: 50kHz, fV: 60Hz) |
| Speakers: | Max. 5W + 5W, stereo |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 590W max. |
| Heat dissipation | 2013.4BTU |
| Mass: | 96kg (211 lb 10 oz) |
| Operating temperature: | 0 to 40(C (14 to 104(F) |
| Operating humidity: | 35 to 80% |
| Dimensions: | 931(W) × 874(H) × 752(D) mm<br>(36¾ × 34½ × 29⅝ inches) |

**Inputs**

| | |
|---|---|
| INPUT A: (supplied with IFB-11) | |
| R/B: | BNC, 0.7Vp-p, 75Ω |
| G/Sync on G: | BNC,1Vp-p sync negative,75Ω (Composite)or 0.7Vp-p, 75Ω (Non-composite) |
| Sync: | Composite sync: BNC<br>Analogue level: 0.6 to 8Vp-p,high impedance, positive/negative<br>TTL level; positive/negative<br>HD/VD separate: BNC<br>Analogue level: 0.6 to 8Vp-p, high impedance, positive/negative<br>TTL level; positive/negative |
| Audio: | Phono(×2) (stereo or monaural selectable)<br>-5dBu, impedance more than 47kΩ |
| INPUT B: (supplied with IFB-1000) | |
| VIDEO[*5]: | Loop-through BNC<br>1Vp-p, sync negative, Automatic 75Ω termination[*6] |
| Y/C[*5]: | Loop-through 4-pin mini DIN<br>Y (luminance): sync negative, Automatic 75Ω termination[*6]<br>C (chrominance): 0.3Vp-p (PAL), 0.286Vp-p (NTSC),Automatic 75Ω termination[*6] |
| AUDIO: | Phono×2<br>stereo or monaural selectable<br>-5dBu, impedance more than 47kΩ |
| INPUT C:(Open for optional interface board) | |
| INPUT D:(Open for optional interface board) | |
| CONTROL S: | Loop-through Mini |
| REMOTE 1: | 14 pin (male) |
| REMOTE 2: | D-sub 9-pin (female, RS-422 port) |
| REMOTE 3: | Loop-through Mini jack |

**Outputs**

| | |
|---|---|
| MONITOR OUT: | Video out: Y/C: Mini DIN 4-pin<br>Composite video:BNC<br>RGB out:BNC(×5)<br>Audio out: Phono( × 2) (VAR/FIX) |

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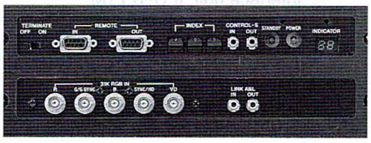
*1 IFB-11/1000 are supplied. IFB-3000 occupies four slots.
*2 These cables are not available in some areas. For details, please consult your nearest Sony office.
*3 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*4 ANSI is a measuring method of American National Standard ANSI IT7.215.
*5 The Y/C input has priority over the VIDEO input.
*6 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## RVP-511DMS (PAL/NTSC/SECAM/NTSC$_{4.43}$)

•50-inch projection wall unit for various projection wall applications •Light in weight (88 kg) and a short cabinet depth (1236 mm) for easier handling and stacking •Input capability: double scan video signals and computer signals which conform to VGA mode 3 (31.469 kHz/59.94 Hz) standard •Optional PWB-411D video input board available for composite, Y/C, component and 15 kHz RGB video signals •Double scan capability for flicker free signal reproduction when using with the optional PWB-411D video input board •Adopts optical coupling CRT for high contrast image display. •Colour temperature seletion: 3200K/6500K/9300K/User preset (factory preset: 6500K) •Two-part construction enables the CRT assembly, together with the electronic chassis, to be easily separated from the cabinet •Wide viewing angle: horizontal 150 degrees, vertical 70 degrees •Optional VPS-515RF/511RF screens with ultra-thin screen surround are available. •Optional CHP-411DM projection wall chassis available for system versatility •Optional wired/wireless remote control unit RM-PJ1292[*] with address function for all projctor control functions, including inputs selection, picture control, RGB size and shift and centering controls

[*] RM-PJ1292 is included in the system control kit PWK-411D.



| | | |
|---|---|---|
| Supplied Accessories: | AC power cord (1)<br>Remote control cable (1.2 m × 1)<br>Operation manual (1) | |
| Optional Accessories: | VPS-515RF: | Optional Screen with 0.2 mm screen surround |
| | VPS-511RF: | Optional Screen with 1.7 mm screen surround |
| | PWK-411D: | System Control Kit (Including RM-PJ1292 Remote Commander and installation manual) |
| | PWB-411D: | Video Input Board |
| | PWR-B511A: | Base Stand |
| | PWR-P512A: | Position Beam for dual mount |
| | PWR-P513A: | Position Beam for triple mount |
| | RM-PJ10: | Remote Control Receiver |
| | RCC-1W2: | 9-pin remote cable (D-sub 9-pin M to D-sub 9-pin M for RS-422) |

### Specifications

**Optical**

| | |
|---|---|
| Projection System: | 3 picture tubes, 3 lenses, rear projection |
| Picture Tube: | 7.7-inch (5.5-inch raster size) high-luminance monochrome optical coupled with sealed coolant |
| Projection Lens: | High performance lens, F1.1/77 mm |
| Screen: | Optional (See Optional Accessories) |
| Light Output[*1]: | ANSI[*2]: 125 $cd/m^2$ (fH: 31.5 kHz, fV: 60Hz)<br>Color temperature: 6500°K<br>Peak white: 977 $cd/m^2$ |

**Electrical**

| | |
|---|---|
| Scan Frequency: | 31.25 kHz/50 Hz/1:1, 31.25 kHz/100 Hz/2:1<br>31.5 kHz/60 Hz/1:1, 31.5 kHz/120 Hz/2:1<br>(Horizontal Frequency/Vertical Frequency/Interlace Ratio) |
| Resolution: | 1000 × 580 dots (measured at RGB 31.25 kHz input) |
| RGB Bandwidth: | 30 MHz (-3 dB) |
| Test Signal: | Cross hair, Hatch (fine), Diagonal hatch, Circle hatch, Dot pattern, H pattern, ME, Window, All white (100 IRE), Black |

| | | |
|---|---|---|
| Input: | RGB: BNC × 5 | |
| 31 kHz: | R: | 0.7 Vp-p ±2 dB, 75 Ω |
| | G: | 0.7 Vp-p ±2 dB, 75 Ω |
| | G on sync: | 1.0 Vp-p ±2 dB, 75 Ω, sync negative |
| | B: | 0.7 Vp-p ±2 dB, 75 Ω |
| | H sync/C sync: | 1.0 to 4.0 Vp-p, 75 Ω, positive/negative |
| | V sync: | 1.0 to 4.0 Vp-p, 75 Ω, positive/negative |
| 15 kHz: | *Available when an optional PWB-411D Video Input Board, is inserted. See PWB-411D specifications. | |
| Control-S: | Mini Jack (mono) | |
| Remote: | RS-422: D-sub 9-pin connector (female)<br>Linked ABL: Mini Jack (mono) | |
| Output: | | |
| Control-S: | Mini Jack (mono) | |
| Remote: | RS-422: D-sub 9-pin connector (female)<br>Linked ABL: Mini Jack (mono) | |

**General**

| | |
|---|---|
| Power Supply: | AC 200 to 240 V, 50/60 Hz |
| Power Consumption: | 200-240V, 1.4A, 300 W |
| Dimensions (max.): | 1018(W) × 781(H) × 1236(D) mm<br>(40$^{1}/_{8}$ × 30$^{3}/_{4}$ × 48$^{3}/_{4}$ inches) |
| Mass: | 88 kg (194 lb) |

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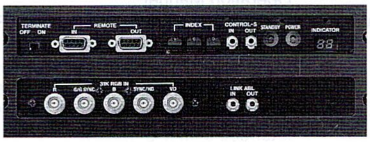
[*1] In the case of the RVP-511DMS with the VPS-511RF optional screen.
[*2] ANSI is a measuring method of the American National Standard ANSI IT 7.215.

## RVP-411DMS (PAL/NTSC/SECAM/NTSC$_{4.43}$)

•41-inch projection wall unit for various projection wall applications •Light in weight (75 kg) and a short cabinet depth (1044 mm) for easier handling and stacking •Input capability: double scan video signals and computer signals which conform to VGA mode 3 (31.469 kHz/59.94 Hz) standard •Optional PWB-411D video input board available for composite, Y/C, component and 15 kHz RGB video signals •Double scan capability for flicker free signal reproduction when using with the optional PWB-411D video input board •Adopts optical coupling CRT for high contrast image display. •Colour temperature seletion: 3200K/6500K/9300K/User preset (factory preset: 6500K) •Two-part construction enables the CRT assembly, together with the electronic chassis, to be easily separated from the cabinet •Wide viewing angle: horizontal 160 degrees, vertical 60 degrees •Optional VPS-515RF/511RF screens with ultra-thin screen surround are available. •Optional CHP-411DM projection wall chassis available for system versatility •Optional wired/wireless remote control unit RM-PJ1292* with address function for all projctor control functions, including inputs selection, picture control, RGB size and shift and centering controls



* RM-PJ1292 is included in the system control kit PWK-411D.

| | | |
|---|---|---|
| Supplied Accessories: | AC power cord (1)<br>Remote control cable (1.2 m × 1)<br>Operation manual (1) | |
| Optional Accessories: | VPS-415RF: | Optional Screen with 0.2 mm screen surround |
| | VPS-411RF: | Optional Screen with 0.2 mm screen surround |
| | PWK-411D: | System Control Kit (Including RM-PJ1292 Remote Commander and installation manual) |
| | PWB-411D: | Video Input Board |
| | PWR-B411A: | Base Stand |
| | PWR-P412A: | Position Beam for dual mount |
| | PWR-P413A: | Position Beam for triple mount |
| | RM-PJ10: | Remote Control Receiver |
| | RCC-1W2: | 9-pin remote cable (D-sub 9-pin M to D-sub 9-pin M for RS-422) |

### Specifications

**Optical**

| | |
|---|---|
| Projection System: | 3 picture tubes, 3 lenses, rear projection |
| Picture Tube: | 7.7-inch (5.5-inch raster size) high-luminance monochrome optical coupled with sealed coolant |
| Projection Lens: | High performance lens, F1.1/77 mm |
| Screen: | Optional (See Optional Accessories) |
| Light Output*1: | ANSI*2: 280 cd/m² (fH: 31.5 kHz, fV: 60Hz)<br>Color temperature: 6500°K<br>Peak white: 2056 cd/m² |

**Electrical**

| | | |
|---|---|---|
| Scan Frequency: | 31.25 kHz/50 Hz/1:1, 31.25 kHz/100 Hz/2:1<br>31.5 kHz/60 Hz/1:1, 31.5 kHz/120 Hz/2:1<br>(Horizontal Frequency/Vertical Frequency/Interlace Ratio) | |
| Resolution: | 800 × 580 dots (measured at RGB 31.25 kHz input) | |
| RGB Bandwidth: | 30 MHz (-3 dB) | |
| Test Signal: | Cross hair, Hatch (fine), Diagonal hatch, Circle hatch, Dot pattern, H pattern, ME, Window, All white (100 IRE), Black | |
| Input: | RGB: BNC × 5 | |
| 31 kHz: | R: | 0.7 Vp-p ±2 dB, 75 Ω |
| | G: | 0.7 Vp-p ±2 dB, 75 Ω |
| | G on sync: | 1.0 Vp-p ±2 dB, 75 Ω, sync negative |
| | B: | 0.7 Vp-p ±2 dB, 75 Ω |
| | H sync/C sync: | 1.0 to 4.0 Vp-p, 75 Ω, positive/negative |
| | V sync: | 1.0 to 4.0 Vp-p, 75 Ω, positive/negative |
| 15 kHz: | *Available when an optional PWB-411D Video Input Board, is inserted. See PWB-411D specifications. | |
| Control-S: | Mini Jack (mono) | |
| Remote: | RS-422: D-sub 9-pin connector (female)<br>Linked ABL: Mini Jack (mono) | |
| Output: | | |
| Control-S: | Mini Jack (mono) | |
| Remote: | RS-422: D-sub 9-pin connector (female)<br>Linked ABL: Mini Jack (mono) | |

**General**

| | |
|---|---|
| Power Supply: | AC 200 to 240 V, 50/60 Hz |
| Power Consumption: | 200-240V, 1.4A, 300 W |
| Dimensions (max.): | 830(W) × 641(H) × 1044(D) mm<br>(32³/₄ × 25¹/₄ × 41¹/₈ inches) |
| Mass: | 75 kg (165 lb 6 oz) |

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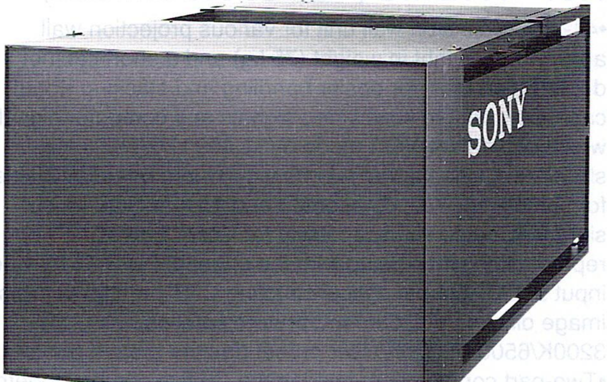
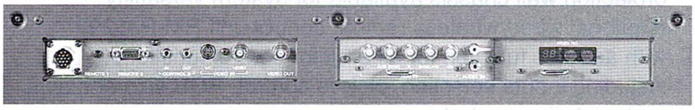
[1] In the case of the RVP-411DMS with the VPS-411RF optional screen.
[2] ANSI is a measuring method of the American National Standard ANSI IT 7.215.

## RVP-401QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

•Suitable for both a multi-screen display and a stand-alone 40-inch projection •Multiscan capability: horizontal 15 to 50kHz, vertical 38 to 150Hz •High resolution of more than 640 × 480 pixels (RGB, measured at fH: 50kHz)/700TV lines (composite video) •Adopts Optical Coupling CRT for high contrast image display •Up to 4 units can be stacked vertically •Wide viewing angle: horizontal 160°, vertical 60° •Colour temperature selection: 3200K/6500K/9300K/User preset •Automatic power on with the external power feed and presentable delay time for power on •Optional IFB series interface boards, SIC series signal interface cables, and PC-1271M signal interface switcher and IFU-1271M interface unit available for system versatility •Optional wired/wireless remote commander RM-1271 with address function for all projector control functions, including input selection, picture control, RGB size and shift and centering controls





| | |
|---|---|
| Supplied accessories: | Interface board IFB-11/101<br>Control S connecting cable (1 m (3 ft 3 inches))<br>Extension board<br>AC power cord<br>Operation Manual |
| Optional accessories: | Remote commander RM-PJ1292, RM-1271<br>Remote control receiver RM-PJ10<br>AC adaptor (for RM-PJ10): AC-E60M<br>Interface board IFB-11/20/101/1000/1200/1301<br>Signal interface switcher PC-1271M<br>Interface unit: IFU-1271M<br>Signal interface cable SIC-10/20A/20C/21/22<br>Multi cable[*1]: CCQ-BRS cable (14-14pin, 2/5/10/25/50m)<br>SIC-M cable (14-14pin, 1/5/15/25/50m) |

### Specifications

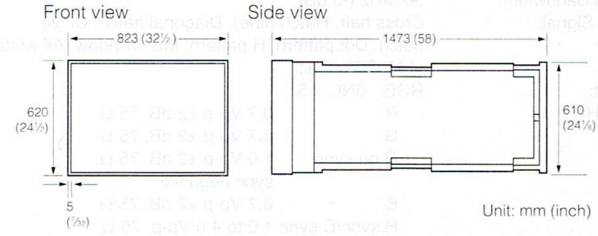
**General**

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$[*2] (automatically selected) |
| Picture tube: | 7-inch (5.5 V) high-luminance monochrome optical coupled, with sealed coolant |
| Projection lens: | High performance HACC lens, F1.0/96 mm |
| Projection picture size: | 40-inch: 813(W) × 610(H) mm (2.7 × 2 ft) |
| Screen: | Two-layered (lenticular and thin film fresnel) |
| Brightness: | ANSI[*3]: 325cd/m$^2$(325nits) (fH: 50kHz, fV: 50Hz)<br>300cd/m$^2$(300nits) (fH: 15kHz, fV: 60Hz)<br>Colour temperature: 6500K<br>Peak white: 700 ft-L(2400cd/m$^2$)<br>All white: 150 ft-L(514cd/m$^2$) |
| Contrast ratio: | 100:1 |
| Viewing angle: | Horizontal: 160°, Vertical: 60° |
| Scanning frequency: | Horizontal: 15 to 50kHz<br>Vertical: 38 to 150Hz |
| Resolution: | 700TV lines (VIDEO IN)<br>640 × 480 pixels (RGB in, measured at fH: 50kHz) |
| Power requirements: | AC 220 to 240V, 50/60 Hz |
| Power consumption: | 340W max. (VIDEO IN), 395W max. (RGB in) |
| Mass: | 105 kg (231 lb) |

**Input**

| | | |
|---|---|---|
| Video | | |
| Video[*4]: | Loop-through BNC<br>1Vp-p, sync negative, Automatic 75Ω termination[*5] | |
| Y/C[*4]: | Mini DIN 4-pin | |
| | Y(luminance): 1Vp-p, sync negative, 75Ω | |
| | C(chrominance): | 0.3Vp-p (PAL),<br>0.286Vp-p (NTSC), 75Ω |
| INPUT A (Supplied with IFB-11) | | |
| R/B: | BNC<br>0.7Vp-p, positive, 75Ω | |
| G/Sync on G: | BNC<br>0.7Vp-p, positive, 75Ω (Non-composite)<br>1.0Vp-p, sync negative, 75Ω (Composite) | |
| Sync: | Composite sync: BNC | |
| | Analogue level: | 0.6 to 8Vp-p, high impedance, positive/negative |
| | TTL level: | positive/negative |
| | HD/VD separate: BNC | |
| | Analogue level: | 0.6 to 8Vp-p, high impedance, positive/negative |
| | TTL level: positive/negative | |
| Audio | Phono<br>-5dBu, impedance more than 47kΩ | |
| INPUT B (Supplied with IFB-101) | | |

**Dimensions**



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[*1] These cables are not available in some areas. For details, please consult your nearest Sony office.
[*2] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
[*3] ANSI is a measuring method of American National Standard ANSI IT7.215.
[*4] The Y/C input has priority over the Composite video input.
[*5] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## VPH-1044QM (PAL/NTSC/SECAM/$\text{NTSC}_{4.43}$)

•Remarkable light output of 700lm(peak white) •Adopts high quality performance HACC lens •Accepts Component (Y/R-Y/B-Y or RGB), Y/C and Composite Video signals •A high resolution of 700TV lines (composite video)/1000TV lines(RGB) •Supplied wired/wireless remote control unit RM-PJ1044 controls all projector functions •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with a screen from 70-inch to 250-inch in size with simple adjustment

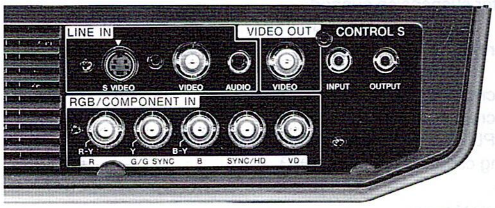
| | |
|---|---|
| Supplied accessories: | Remote commander RM-PJ1044<br>Batteries for remote commander<br>Remote commander receiver<br>Remote control cable(1.5 m)<br>Spacer<br>AC power cord |
| Optional accessories: | |
| Projector pedestal: | SU-722 |
| Projector suspension support: | PSS-10/722 |
| Flat screen: | 100-inch: VPS-100FH<br>120-inch: VPS-120FH |
| Rear screen: | 70-inch: VPS-702R |
| Rear screen frame: | VPF-701R |
| VPE/VPL/VPM series for 150 to 250-inch projection | |
| Carrying case: | VLC-1040 |

### Specifications

**General**

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/$\text{NTSC}_{4.43}$[*1] (automatically selected) |
| Picture tube: | 7-inch(5.5-inch V) liquid cooled high brightness monochrome tube |
| Projection lens: | HACC(High-resolution Aspherical and Colour Corrected) lens F1.0/135 mm |
| Brightness: | ANSI[*2]: 100lm (fH: 15.75kHz, fV: 60Hz)<br>Colour temperature: 6500°K<br>Peak white: 700lm<br>All white: 140lm |
| Resolution: | 700TV lines(VIDEO IN), 1000TV lines(RGB IN) |
| Speaker: | Monaural, 3W max |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 210W max. |
| Mass: | 38 kg(83 lb 12 oz) |

***Super Bright***



**Inputs**

| | |
|---|---|
| Line | |
| Composite[*3]: | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination[*4] |
| Y/C(S video)[*3]: | Mini DIN 4-pin |
| Audio: | Phono<br>-5dBu, high impedance |
| RGB/Component | |
| R-Y/R: | BNC<br>0.7Vp-p, positive, 75Ω |
| Y/G/Sync on G: | BNC<br>0.7Vp-p, positive, 75Ω(Non-composite)<br>1.0Vp-p, sync negative, 75Ω(Composite) |
| B-Y/B: | BNC<br>0.7Vp-p, positive, 75Ω |
| Sync: | Composite sync: BNC<br>Analogue level:0.6 to 8Vp-p, high impedance, positive/negative<br>TTL level: positive/negative<br>HD/VD separate: BNC<br>Analogue level:0.6 to 8Vp-p, high impedance,positive/negative<br>TTL level: positive/negative |
| Control S: | Loop-through Mini jack |

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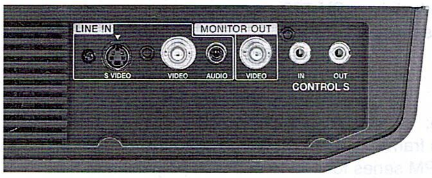
[*1] The $\text{NTSC}_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
[*2] ANSI is a measuring method of American National Standard ANSI IT7.215.
[*3] S VIDEO input has priority over Composite video input.
[*4] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## VPH-1001QM (PAL/NTSC/SECAM/NTSC$_{4.43}$)

•Remarkable light output of 700lm •A high resolution of 700TV lines •Y/C input •Supplied wired/wireless remote control unit RM-PJ1044 controls all projector functions such as set up adjustments and operational functions •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with a screen from 70-inch to 250-inch in size with simple adjustment



| | |
|---|---|
| Supplied accessories: | Remote commander RM-PJ1044<br>Batteries for remote commander<br>Remote commander receiver<br>Remote control cable(1.5 m)<br>Spacer<br>AC power cord |
| Optional accessories: | |
| Projector pedestal: | SU-722 |
| Projector suspension support: | PSS-10/722 |
| Flat screen: | 100-inch: VPS-100FH<br>120-inch: VPS-120FH |
| Rear screen: 70-inch: | VPS-702R |
| Rear screen frame: | VPF-701R |
| VPE/VPL/VPM series for 150 to 250-inch projection | |
| Carrying case: | VLC-1040 |

### Specifications

**General**

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switcing of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$[*1] (automatically selected) |
| Picture tube: | Liquid cooled high brightness monochrome tube |
| Projection lens: | 7-inch(5.5-inch V) High performance hybrid multi-coating lens F1.0/130mm |
| Brightness: | ANSI[*2]: 100lm (fH: 15.75kHz, fV: 60Hz)<br>Colour temperature: 6500°K<br>Peak white: 700lm<br>All white: 140lm |
| Resolution: | 700TV lines |
| Audio power output: | Monaural, 3W max |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 210W |
| Mass: | 30 kg(66 lb 2 oz) |

**Input**

| | | |
|---|---|---|
| Line | | |
| Composite[*3]: | Loop-through BNC<br>1.0Vp-p, sync negative, Automatic 75Ω termination[*4] | |
| Y/C(S video)[*3]: | Mini DIN 4-pin | |
| | Y(luminance): | 1.0Vp-p, sync negative, 75Ω |
| | C(chrominance): | 0.3Vp-p(PAL), 75Ω<br>0.286Vp-p(NTSC), 75Ω |
| Audio: | Phono<br>-5dBu, high impedance | |
| Control S: | Loop-through Mini jack | |

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[*1] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
[*2] ANSI is a measuring method of American National Standard ANSI IT7.215.
[*3] S VIDEO input has priority over Composite video input
[*4] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

# VPL-S800M (PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

•LCD (Liquid Crystal Display)-based multiscan projector •Three p-Si TFT LCD panels for a total of 1,557,504 pixels (519,168 pixels × 3) •400W DC drive metal halide lamp incorporated •Light output of 700 ANSI*1 lumen •Multiscan capability with a built-in scan converter: fH: 15 to 65kHz, fV: 38Hz to 120Hz •Thanks to the preset data, optimum picture reproduction can be attained just by connecting an input signal •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Power zoom, power focus and picture shift functions for installation flexibility •On-screen menu with a choice of seven languages for adjustment/operation •User-friendly, joystick type remote commander RM-PJM800 for easy operation •Optional IFB series interface board, SIC series signal interface cables, PC-1271M signal interface switcher and IFU-1271M interface unit available for system versatility •Twin stack capability •Desk top mounted projection, ceiling mounted projection and rear projection capabilities •4 optional lens available •Can be used with screens from 40 to 300-inch in size •Power saving mode available

| | |
|---|---|
| Supplied accessories: | Remote commander RM-PJM800*2<br>Remote commander cable (Stereo) (15m)<br>AA size battery (×2)<br>AC power cord<br>Operating manual<br>Installation manual |
| Optional accessories: | Projector lamp (for replacement) PK-PJ800<br>Suspension support PSS-800<br>Suspension support PSS-10<br>Projector stand (for twin stacking) SU-PJ800<br>Signal interface switcher PC-1271M<br>Interface board IFB-12/20/21/1000<br>Multi-cable*2 14-pin→14pin<br>CCQ-BRS 2/5/10/25/50m<br>SIC-M 1/5/25/50m<br>Signal interface cable SIC-10/20A/20C/21/22<br>Signal adapter HD D-sub 15-pin→D-sub 9-pin (for SIC Cable) ADP-10<br>Signal adapter Macintosh®-VGA*4 adapter ADP-20<br>D-sub HD 15-pin→5BNC cable SMF-400<br>D-sub HD 15-pin→D-sub HD 15-pin SMF-401<br>Mouse receiver RM-PJ21<br>Remote control receiver RM-PJ10<br>Projection lens VPLL-ZP40<br>Projection lens VPLL-ZP100<br>Projection lens VPLL-FM30<br>Projection lens VPLL-FM20<br>100-inch flat Screen VPS-100FH*2<br>120-inch flat Screen VPS-120FH*2 |

## Specifications

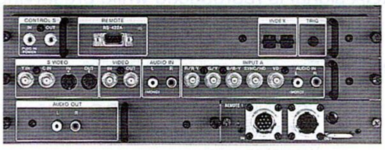
**Optical**

| | |
|---|---|
| Projection system: | 3 LCD panels, 1 lens projection |
| LCD panel: | 1.3-inch TFT LCD panel, 1,557,504 pixels (519,168 pixels × 3) |
| Lamp: | 400W DC drive metal halide |
| Light output: | ANSI 700lm*1 |
| Optional projection lens: | |

| | Screen coverage (inches) | Screen coverage when twin stacking (inches) | Throwing distance (mm) | | |
|---|---|---|---|---|---|
| | | | 100-inch | 150-inch | 200- inch |
| VPLL-ZP40 (Standard focus) | 40-300 | 60-240 | 3820 - 5580 | 5770 - 8420 | 7730 - 11250 |
| VPLL-ZP100 (Long focus) | 80-300 | 80-250 | 5500 - 10430 | 8330 - 15650 | 11150 - 20880 |
| VPLL-FM30 (Fixed short focus) | 40-290 | N.A. | 2790 | 4210 | 5640 |
| VPLL-FM20 (Fixed short focus) | 50-200 | N.A. | 1790 | 2720 | 3640 |

**General**

| | |
|---|---|
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M automatically selected |
| Resolution: | Video: 600TVlines<br>RGB: 832 × 624 pixels |
| Scanning frequency: | fH: 15kHz-65kHz<br>fV: 38Hz-120Hz<br>Dot clock: 80MHz |
| Speaker: | Max. 3W monaural 90 mm × 50 mm |
| Power requirements: | AC220 to 240V, 50/60Hz |
| Power consumption: | Max.: 570W, Standby: 15W |



| | |
|---|---|
| Heat dissipation: | 1945BTU |
| Dimention: | 480(W) × 239(H) × 662.5(D) mm<br>(19 × 9½ × 26⅛ inches) |
| Mass: | Approx. 25 kg (55 lb 2 oz) |
| Operating temperature: | 0 to 40˚C (32 to 104˚F) |
| Operating humidity: | 35 to 85% |
| Storage temperature: | -20 to 60˚C (–4 to 140˚F) |
| Storage humidity: | 10 to 90% |

**Inputs/Outputs**

| | |
|---|---|
| VIDEO IN: | |
| Composite video: | Loop-through BNC 1Vp-p ±2dB sync negative, 75Ω |
| S VIDEO IN: | |
| Y IN: | BNC 1Vp-p ±2dB sync negative, 75Ω |
| C IN: | BNC Burst 0.286Vp-p ±2dB (NTSC), 75Ω<br>0.3Vp-p ±2dB (PAL), 75Ω |
| Y/C IN: | Loop-through Mini DIN 4-pin |
| Y(luminance): | 1Vp-p ±2dB sync negative, 75Ω |
| C(chrominance): | Burst 0.286Vp-p ±2dB (NTSC), 75Ω<br>0.3Vp-p ±2dB (PAL), 75Ω |
| Audio IN: | Phono, stereo, 500mV rms, impedance more than 47kΩ (stereo or monaural selectable) |
| INPUT A: | |
| Analog RGB/Component: | BNC × 5 |
| R/R-Y: | 0.7Vp-p ±2dB positive, 75Ω |
| G: | 0.7Vp-p ±2dB positive, 75Ω |
| G/Y with sync: | 1Vp-p ±2dB sync negative, 75Ω |
| B/B-Y: | 0.7Vp-p ±2dB positive, 75Ω |
| SYNC/HD | |
| Composite sync: | 0.6-8Vp-p high impedance, sync positive/negative |
| Horizontal sync: | 0.6-8Vp-p high impedance, sync positive/negative |
| VD | |
| Vertical sync: | 0.6-8Vp-p high impedance, sync positive/negative |
| Audio IN: | Phono, stereo, 500mV rms, impedance more than 47kΩ (stereo or monaural selectable) |
| INPUT B: | 14-pin multi-connectors (Input: Male, Output: Female) IFB-40 is installed in INPUT B |
| AUDIO OUT (Variable out): | Phono, stereo, max. 1V rms, when the input signal is 500mV rms, impedance less than 5kΩ |
| CONTROL S IN/ PLUG IN POWER: | Stereo mini jack 5Vp-p, Plug in power DC 5V maximum output 60mA |
| CONTROL S OUT: | Stereo mini jack 5Vp-p |
| REMOTE: | |
| RS-422A: | D-sub 9-pin (female) |
| TRIG: Mini jack | |
| | Power ON: DC 5V output impedance 4.7kΩ<br>Power OFF: 0V |
| Safety regulations: | EN60 950(TÜV), CE, C-tick |

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*1 ANSI is a measuring method of American National Standard ANSI IT7.228.
*2 Some items are not available in some areas. For details, please consult your nearest Sony office.
*3 VGA is a registered trademark of International Business Machines Corporation. Macintosh is a trademark of Apple Computer Inc.

## VPL-S500E/S500M (PAL/NTSC/SECAM/NTSC4.43)

•LCD (Liquid Crystal Display)-based portable presentation projector •Three p-Si TFT LCD panels for a total of 1,557,504 pixels (519,168 pixels × 3 panels) •250W metal halide lamp incorporated •A high light output of 450 ANSI lumen •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Accepts VGA, SVGA, XGA* with a horizontal frequency of 15.24 to 57 kHz composite video, Y/C video and component video signals •Light in weight and compact design for easier handling •On-screen menu with a choice of seven languages for adjustment/operation •Supplied wired/wireless remote commander RM-PJM500 controls all the projector functions such as set-up adjustments and operational functions •Mouse function operation for remote control of the connected computer source •Desk top mounted projection and ceiling mounted projection capabilities •Can be used with screens from 40 to 300-inch in size •Power saving mode available •Reproduced images can be viewed without any disturbance of the projector, thanks to the optical design which enables the projector to be installed lower in comparison to the screen

*Compressed XGA signal is reproduced while preserving the detail of the image.

| | |
|---|---|
| Supplied Accessories: | Remote commander RM-PJM500<br>Mouse receiver RM-PJ21<br>HD D-sub 15-pin (male) to HD D-sub 15-pin (male) cable<br>VGA-Macintosh adapter<br>Ventilation cover<br>Size AA (R6) batteries<br>AC power cord<br>Operating manual |
| Optional accessories: | Signal Interface cable SIC-20A/20C/21/22<br>Remote control receiver RM-PJ10<br>Projector lamp (for replacement) PK-PJ500*2<br>Projection lens VPLL-FM30<br>Projection lens VPLL-ZM100<br>Carrying case VLC-500*2<br>Suspension support PSS-500<br>Signal adapter ADP-10<br>(HD D-sub 15-pin to HD D-sub 9-pin for SIC Cable)<br>HD D-sub 15-pin to 5 BNC cable SMF-400<br>100-inch flat screen VPS-100FH*2<br>120-inch flat screen VPS-120FH*2 |

## Specifications

### Optical

| | |
|---|---|
| Projection system: | 3 LCD panels, 1 lens, projection system<br>1.3-inch p-Si TFT LCD panel, 1,5567,504 pixels (519,168 pixels × 3) |
| Projection lens: | 1.5 times zoom lens f50 to 75 mm/F 2.5 to 3.1 |
| Lamp: | 250W Metal halide lamp |
| Screen coverage: | 40 to 300-inch |
| Light output: | ANSI*3 450lm |
| Throwing distance: | 40-inch: 1470 to 2190 mm (57 7/8 to 86 1/4 inches)<br>80-inch: 3040 to 4450 mm (119 3/4 to 175 1/4 inches)<br>100-inch: 3820 to 4450 mm (150 1/2 to 219 3/4 inches)<br>120-inch 4600 to 6720 mm (181 1/8 to 264 5/8 inches)<br>200-inch 7730 to 11250 mm (304 3/8 to 443 inches)<br>300-inch 11640 to 16910 mm (458 3/8 to 655 3/4 inches) |

### General

| | |
|---|---|
| Colour system: | PAL/NTSC/SECAM/NTSC4.43 |
| Resolution: | Video: 600TV lines<br>RGB: 832 × 624 pixels |
| Compatible signals: | 15k RGB/Component (NTSC base)<br>fH: 15.734kHz, fV: 59.94Hz<br>15k RGB/Component (PAL/SECAM base)<br>fH: 15.625kHz, fV: 50.0Hz<br>VGA mode1 (640 x 350dots)<br>fH: 31.468kHz, fV: 70.086Hz<br>VGA mode2 (640 x 400dots)<br>fH: 31.468kHz, fV: 70.086Hz<br>VGA mode3 (640 x 480dots)<br>fH: 31.468kHz, fV: 59.94Hz<br>VGA VESA 72Hz (640 x 480dots)<br>fH: 37.86kHz, fV: 72.809Hz<br>VGA VESA 75Hz (640 x 480dots)<br>fH: 37.5kHz, fV: 75Hz<br>VGA VESA 85Hz (640 x 480dots)<br>fH: 43.269kHz, fV: 85.008Hz<br>Macintosh 13-inch mode (640 x 480 dots)<br>fH: 35kHz, fV: 66.7Hz<br>Macintosh 16-inch mode (640 x 480 dots)<br>fH: 49.724kHz, fV: 74.55Hz<br>S VGA VESA 56Hz (800 x 600dots)<br>fH: 35.156kHz, fV: 56.25Hz<br>S VGA VESA 60Hz (800 x 600dots)<br>fH: 37.879kHz, fV: 60.32Hz<br>S VGA VESA 72Hz (800 x 600dots)<br>fH: 48.077kHz, fV: 72.188Hz<br>S VGA VESA 75Hz (800 x 600dots)<br>fH: 46.875kHz, fV: 75.0Hz<br>S VGA VESA 85Hz (800 x 600dots)<br>fH: 53.674kHz, fV: 85.061Hz<br>XGA VESA 60Hz (1024 x 768dots)<br>fH: 48.363kHz, fV: 60Hz*3<br>XGA VESA 70Hz (1024 x 768dots)<br>fH: 56.476kHz, fV: 70.069Hz*3 |
| Horizontal frequency range of computer input: | RGB: 15kHz (S on G/Composite sync), 24 to 57kHz |
| Speaker: | Max. 2W + 2W, 7 × 4cm stereo |
| Power requirements: | AC220 to 240V, 50/60Hz |
| Power consumption: | Max. 350W (Standby mode: 10W) |
| Heat dissipation: | 1194.4BTU |
| Mass: | Approx. 10kg (22lb 1oz) |
| Operating temperature: | 0˚C to 40˚C (32˚F to 104˚F) |
| Operating humidity: | 35% to 85% |
| Storage temperature: | -20˚C to 60˚C (–4˚F to 149˚F) |
| Storage humidity: | 10% to 90% |
| Dimensions: | 368(W) × 176(H) × 444(D) mm<br>(14½ × 7 × 17½ inches) |

### Input/Output

| | |
|---|---|
| VIDEO IN: | |
| Composite video: | BNC, 1Vp-p±2dB sync negative 75Ω |
| S VIDEO: | Mini DIN 4-pin |
| Y (luminance): | 1Vp-p±2dB sync negative 75Ω |
| C (chrominance): | Burst 0.286Vp-p±2dB (NTSC), 75Ω<br>0.36Vp-p±2dB (PAL), 75Ω |
| Audio IN: | Phono (× 2)<br>500mVrms, stereo, impedance more than 47kΩ |
| INPUT A: | |
| Analog RGB/Component: | HD D-sub 15-pin (female) |
| R/R-Y: | 0.7Vp-p±2dB positive, 75Ω |
| G: | 0.7Vp-p±2dB positive, 75Ω |
| G with sync/Y: | 1Vp-p±2dB sync negative, 75Ω |
| B/B-Y: | 0.7Vp-p±2dB positive, 75Ω |
| SYNC/HD: | |
| Composite sync: | 0.6-8Vp-p high impedance, sync positive/negative |
| Horizontal sync: | 0.6-8Vp-p high impedance, sync positive/negative |
| VD: | |
| Vertical sync: | 0.6-8Vp-p high impedance, sync positive/negative |
| AUDIO IN: | Stereo minijack<br>500mVrms, impedance more than 47kΩ |
| AUDIO OUT (variable out): | Phono (× 2)<br>Max. 1Vrms, when an input is 500mVrms, impedance less than 5kΩ |
| CONTROL S IN/PLUG IN POWER: | Stereo minijack<br>5Vp-p, Plug in power, DC 5V, maximum output 60mA |
| Safety regulations: | EN60 950 (TÜV), CE, C-Tick |

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*1 VGA is a registered trademark of International Business Machines Corporation. Macintosh is a trademark of Apple Computer Inc.
*2 Some items are not available in some areas. For details, please consult your nearest Sony office.
*3 ANSI is a measuring method of American National Standard ANSI IT7.228
*4 Compressed XGA signal is reproduced.

## **VPL-V800QM** (PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

• LCD (Liquid Crystal Display)-based multiscan projector •Three p-Si TFT LCD panels for a total of 921,600 pixels (307,200 pixels × 3 panels) •400W metal halide lamp incorporated •Remarkable light output of 800 ANSI lumen •Multiscan capability with a built-in scan converter: fH: 15kHz to 70kHz, fV: 38 to 120Hz*1 •Thanks to the preset data, optimum picture reproduction can be attained just by connecting an input signal •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Power zoom, power focus and picture shift functions for installation flexibility •On-screen menu with a choice of seven languages for adjustment/operation •User friendly, joystick type remote commander RM-PJM800 for easy operation •Optional IFB series interface board, SIC series signal interface cables, PC-1271M signal interface switcher and IFU-1271 interface unit available for system versatility •Twin stack capability*2 •Desk top mounted projection, ceiling mounted projection and rear projection capabilities •Can be used with screens from 40 to 300-inch in size with simple adjustments •Power saving mode available

*1 Signals are converted to 640 × 480 dots.
*2 Screen coverage of 60 to 240-inches

| | |
|---|---|
| Supplied accessories: | Remote commander RM-PJM800<br>Remote commander cable (15 m)<br>Size AA (R6) battery (×2)<br>AC power cord<br>Operating instructions<br>Installation manual |
| Optional accessories: | Projection lamp (for replacement) PK-PJ800*1<br>Interface board IFB-12/20/21/40/1000<br>Signal interface switcher PC-1271M<br>Interface unit IFU-1271M<br>Signal interface cable SIC-10/20A/20C/21/22<br>Multi cable*1 CCQ-BRS cable (14/14pin, 2/5/10/25/50m)<br>SIC-M cable (14/14pin, 1/5/15/25/50m)<br>Monitor cable SMF-400<br>(HD D-sub 15-pin to 5 BNC)<br>Monitor cable SMF-401<br>(HD D-sub 15-pin to HD D-sub 15-pin)<br>Signal adapter ADP-10<br>(HD D-sub 15-pin to D-sub 9-pin for SIC Cable)<br>Signal adapter ADP-20 (Macintosh® to VGA)*2<br>Remote commander RM-PJ1000<br>Mouse receiver RM-PJ21<br>Remote control receiver RM-PJ10<br>Projection lens VPLL-FM100<br>Projector stand SU-PJ800 (for twin stacking)<br>Suspension support PSS-800<br>Suspension support PSS-10<br>100-inch flat screen VPS-100FH*3<br>120-inch flat screen VPS-120FH*3 |

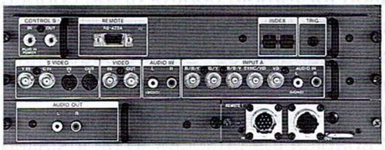
## Specifications

### Optical

| | |
|---|---|
| Projection system: | 3 LCD panels, 1 lens projection |
| LCD panel: | 1.3-inch p-Si TFT LCD panel, 921,600pixels (307,200pixels × 3 panels) |
| Projection lens: | 1.6 times power zoom lens with power focus and picture shift f50 to 80mm/F2.5 to 3.1 |
| Lamp: | 400W metal halide lamp |
| Screen coverage: | 40 to 300-inch |
| Light output: | ANSI *3: 800lm |
| Throwing distance: | 40-inch: 1490 to 2290 mm (58 3/4 to 90 1/4 inches)<br>80-inch: 3090 to 4710 mm (121 3/4 to 185 1/2 inches)<br>100-inch: 3880 to 5910 mm (152 7/8 to 232 3/4 inches)<br>120-inch: 4680 to 7120 mm (184 3/8 to 280 3/8 inches)<br>200-inch: 7860 to 11940 mm (309 1/2 to 470 1/8 inches)<br>300-inch: 11820 to 17960 mm (465 3/8 to 707 1/8 inches) |

### General

| | |
|---|---|
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M automatically selected |
| Resolution: | Video: 500TV lines<br>RGB: 640 × 480 pixels |
| Scanning frequency: | Horizontal:15 to 65kHz<br>Vertical: 38 to 120Hz |
| Speakers: | Max. 3W, 9 × 5cm monoural |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Max.: 570W, Stand by: 15W |
| Heat dissipation: | 1945BTU |

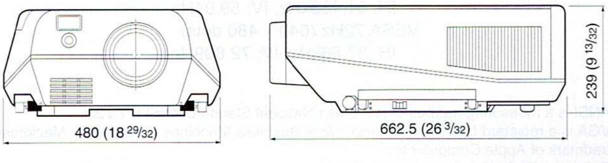


| | |
|---|---|
| Mass: | Approx. 25 kg (55 lb 2 oz) |
| Operating temperature: | 0 to 40˚C (32 to 104˚F) |
| Operating humidity: | 35 to 85% |
| Storage temperature: | -20 to 60˚C (-4 to 140˚F) |
| Storage humidity: | 10 to 90% |

### Inputs/Outputs

| | |
|---|---|
| VIDEO: | |
| Composite video | Loop-through BNC<br>1Vp-p±2dB sync negative, 75Ω |
| S VIDEO: | |
| Y IN: | BNC<br>1Vp-p±2dB sync negative, 75Ω |
| C IN: | BNC<br>Burst 0.286Vp-p ±2dB (NTSC), 75Ω<br>0.3Vp-p±2dB (PAL), 75Ω |
| Y/C IN: | Loop-through Mini DIN 4-pin |
| Y (luminance): | 1Vp-p±2dB sync negative, 75Ω |
| C (chrominance): | Burst 0.286Vp-p ±2dB (NTSC), 75Ω<br>0.3Vp-p±2dB (PAL), 75Ω |
| Audio IN: | Phono (×2)<br>500mV rms, stereo, impedance more than 47kΩ<br>(Stereo or monaural selectable) |
| INPUT A : | |
| Analog RGB/Component: BNC × 5 | |
| R/R-Y: | 0.7Vp-p±2dB positive, 75Ω |
| G: | 0.7Vp-p±2dB positive, 75Ω |
| G with sync/Y: | 1Vp-p±2dB sync negative, 75Ω |
| B/B-Y: | 0.7Vp-p±2dB positive, 75Ω |
| Sync/HD: | |
| Composite sync: | 0.6 to 8Vp-p, high impedance, sync positive/negative |
| Horizontal sync: | 0.6 to 8Vp-p, high impedance, sync positive/negative |
| VD: | |
| Vertical sync: | 0.6 to 8Vp-p, high impedance, sync positive/negative |
| Audio IN: | Phono (×2)<br>500mV rms, stereo, impedance more than 47kΩ<br>(stereo or monaural selectable) |
| INPUT B : | |
| Supplied with an IFB-40: | 14-pin multi connector (Input: male, Output: Female) |
| AUDIO OUT: | Phono (×2) |
| (Variable out) | Max. 1V rms, stereo, when input is 500mV rms, impedance less than 5kΩ |
| CONTROL S | |
| IN/PLUG IN POWER: | Stereo mini jack<br>5Vp-p, Plug in power DC 5V<br>maximum output 60mA |
| OUT: | Stereo mini jack 5Vp-p |
| REMOTE: | |
| RS-422A: | D-sub 9-pin (female) |
| TRIG: | Mini jack<br>Power ON: DC 5V output impedance 4.7kΩ<br>Power OFF: 0V |
| **Safety regulations** | EN60 950 (TÜV), CE, C-Tick Mark |

**Dimensions:**



unit: mm (inch)

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*1 Some items are not available in some areas.
For details, please consult your nearest Sony office.
*2 VGA is a registered trademark of International Business Machines Corporation.
Macintosh is a trademark of Apple Computer Inc.
*3 ANSI is a measuring method of American National Standard ANSI IT7.228.

## VPL-V500QM (PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

### LCD Data Projector

•LCD (Liquid Crystal Display)-based video projector •Three p-Si TFT LCD panels for a total of 921,600 pixels (307,200 pixels × 3 panels) •250W metal halide lamp incorporated •A high light output of 500 ANSI lumen*1 •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Accepts VGA*2, Macintosh 13-inch mode and SVGA*3 mode other from video signals •Light in weight and compact design for easier handling •On-screen menu with a choice of seven languages for adjustment/operation •Supplied wired/wireless remote commander RM-PJM500 controls all the projector functions such as set-up adjustments and operational functions •Mouse function operation for remote control of the connected computer source •Desk top mounted projection and ceilings mounted projection capabilities •Can be used with screens from 40 to 300-inch in size •Reproduced images can be viewed without any disturbance of the projector, thanks to the optical design which enables the projector to be installed lower in comparison to the screen •Power saving mode available

| | |
|---|---|
| Supplied accessories: | Remote commander RM-PJM500<br>Mouse receiver RM-PJ21<br>HD D-sub 15-pin (male) to HD D-sub 15-pin (male) cable<br>VGA-Macintosh adapter<br>Size AA (R6) battery (×2)<br>AC power cord<br>Operating instructions |
| Optional accessories: | Signal Interface cable SIC-20A/20C/21/22<br>Remote control receiver RM-PJ10<br>Projector lamp (for replacement) PK-PJ500*4<br>Projection lens VPLL-FM100<br>Carrying case VLC-500<br>Suspension support PSS-500<br>Signal adapter ADP-10<br>(HD D-sub 15-pin to D-sub 9-pin for SIC Cable)<br>HD D-sub 15-pin to 5 BNC cable SMF-400<br>100-inch flat screen VPS-100FH*4<br>120-inch flat screen VPS-120FH*4 |

## Specifications

**Optical**

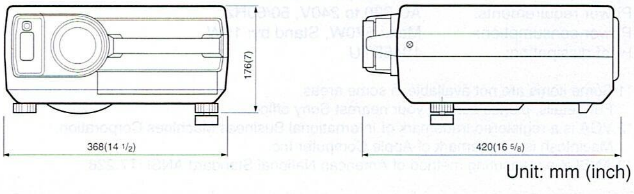
| | |
|---|---|
| Projection system: | 3 LCD panels, 1 lens, projection<br>1.3-inch p-Si TFT LCD panel, 921,600 pixels (307,200 pixels × 3 panels) |
| Projection lens: | 1.6 times zoom lens<br>f50 to 80 mm/F2.5 to 3.1 |
| Lamp: | 250W metal halide lamp |
| Screen coverage: | 40 to 300-inch |
| Light output: | ANSI *1: 500lm |
| Throwing distance: | 41-inch: 1490 to 2290mm (58¾ to 90¼ inches)<br>80-inch: 3090 to 4710mm (121¾ to 185½ inches)<br>100-inch: 3880 to 5910mm (152⅞ to 232¾ inches)<br>120-inch: 4680 to 7120mm (184⅜ to 280⅜ inches)<br>200-inch: 7860 to 11940mm (309½ to 470⅛ inches)<br>300-inch: 11820 to 17960mm (465⅜ to 707⅛ inches) |

**General**

| | |
|---|---|
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M automatically selected |
| Resolution: | Video: 500TV lines<br>RGB: 640 × 480 pixels |
| Compatible signals | 15k RGB/Component (NTSC)<br>fH: 15.734kHz, fV: 59.94Hz<br>15k RGB/Component (PAL/SECAM)<br>fH: 15.625kHz, fV: 50.0Hz<br>VGA mode 1 (640 × 350 dots)<br>fH: 31.468kHz, fV: 70.086Hz<br>VGA mode 2 (TEXT 640 × 400 dots)<br>fH: 31.468kHz, fV: 70.086Hz<br>VGA mode 3 (GRAPHICS 640 × 480 dots)<br>fH: 31.468kHz, fV: 59.94Hz<br>VESA 72Hz (640 × 480 dots)<br>fH: 37.86kHz, fV: 72.809Hz<br>Macintosh 13-inch mode<br>fH: 35.0kHz, fV: 66.667Hz<br>S VGA VESA 56Hz (800 × 600 dots)*2<br>fH: 35.156kHz, fV: 56.25Hz<br>S VGA VESA 60Hz (800 × 600 dots)*2<br>fH: 37.879kHz, fV: 60.32Hz |
| Horizontal frequency range of computer input: | RGB: 15kHz (S on G/Composite Sync)<br>24 to 40kHz |
| Speakers: | Max. 2W+2W, 7 × 4cm stereo |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Max.: 350W, Stand by: 10W |
| Heat dissipation: | 1194.4BTU |
| Mass: | Approx. 10 kg (22 lb) |
| Operating temperature: | 0 to 40˚C(32 to 104˚F) |
| Operating humidity: | 35 to 85% |
| Storage temperature: | -20 to 60˚C (-4 to 140˚F) |
| Storage humidity: | 10 to 90% |

**Inputs/Outputs**

| | |
|---|---|
| VIDEO IN: | |
| Composite video: | BNC<br>1Vp-p 2dB sync negative, 75Ω |
| S video: | Mini DIN 4-pin<br>Y (luminance): 1Vp-p ±2dB sync negative, 75Ω<br>C (chrominance): 0.3Vp-p 2dB (PAL), 75Ω<br>Burst 0.286Vp-p ±2dB (NTSC), 75Ω |
| Audio IN: | Phono (×2)<br>500mV rms, stereo, impedance more than 47kΩ |
| INPUT A: | |
| Analogue RGB/Component: | HD D-sub 15-pin (Female) |
| R/R-Y: | 0.7Vp-p ±2dB positive, 75Ω |
| G: | 0.7Vp-p ±2dB positive, 75Ω |
| G with sync/Y: | 1Vp-p ±2dB sync negative, 75Ω |
| B/B-Y: | 0.7Vp-p ±2dB positive, 75Ω |
| Sync/HD | Composite sync: 0.6 to 8Vp-p, high impedance, sync positive/negative<br>Horizontal sync: 0.6 to 8Vp-p, high impedance, sync positive/negative |
| VD: | Vertical sync: 0.6 to 8Vp-p, high impedance, sync positive/negative |
| Audio IN: | Phono (×2)<br>Stereo, 500mV rms, impedance more than 47kΩ |
| AUDIO OUT: (Variable out) | Phono (×2)<br>Max. 1Vrms, when input is 500mV rms, impedance less than 5kΩ |
| CONTROL S IN/ PLUG IN POWER: | Stereo mini jack<br>5Vp-p, Plug in power DC5V maximum output 60mA |



Unit: mm (inch)

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*1 ANSI is a measuring method of American National Standard ANSI IT7.228.
*2 VGA is a registerd tradmark of International Business Machines Corporation. Macintosh is a tradmark of Apple Computer Inc.
*3 Compressed S VGA signal is reproduced.
*4 Some items are not available in some areas. For details, please consult your nearest Sony office.

## VPL-W400QM (PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

### LCD Video Projector

•LCD (Liquid Crystal Display)-based video projector •Three 16:9 p-Si TFT LCD panels for a total of more than 1,500,000 pixels (3 panels of 1,068 × 480 pixels) •250W metal halide lamp incorporated •Remarkable light output of 400 ANSI lumen[*1] •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Accepts component (Y/R-Y/B-Y), RGB, Y/C video, composite video and HDTV[*3] signals •Signals with 4:3 aspect ratio can be presented as 4:3 or in four different 16:9 modes: full, zoom, sub title and wide zoom •Letter box signals are reproduced automatically with a 16:9 aspect ratio in the Auto wide ON mode •Quick retrieval of desired picture conditions with the memory function •On-screen menu with a choice of seven languages for adjustment/operation •Supplied wired/wireless remote commander RM-PJM500 controls major projector functions such as set-up adjustments and operational functions •Light in weight and compact design for easy handling •Desk top mounted projection and ceilings mounted projection capabilities •Can be used with screens from 41 to 300-inch in size (16:9) •Reproduced images can be viewed without any disturbance of the projector, thanks to the optical design which enables the projector to be installed lower in comparison to the screen •Power saving mode available

| | |
|---|---|
| Supplied accessories: | Remote commander RM-PJM500<br>AA (R6) size battery (×2)<br>AC power cord<br>BNC (male) to Phono (female) adapter<br>Operating instructions |
| Optional accessories: | Projector lamp (for replacement) PK-PJ500[*3]<br>Projection lens VPLL-FM100<br>Carrying case VLC-500<br>Suspension support PSS-500<br>Signal interface cable SIC-10 |

## Specifications

**Optical**

| | |
|---|---|
| Projection system: | 3 LCD panels, 1 lens, projection<br>1.35-inch p-Si TFT LCD panel, 1,538,640pixels (512,880pixels × 3 panels) |
| Projection lens: | 1.6 times zoom lens<br>f50 to 80mm/F2.5 to 3.1 |
| Lamp: | 250W DC metal halide lamp |
| Screen coverage: | 41 to 300-inch (aspect ratio: 16:9)<br>34 to 245-inch (aspect ratio: 4:3) |
| Light output: | ANSI [*1]: 400lm (16:9) |
| Throwing distance: | |
| <16:9> | 41-inch: 1490 to 2280mm (58¾ to 89⅞ inches)<br>80-inch: 3000 to 4570mm (118⅛ to 180 inches)<br>100-inch: 3770 to 5740mm (148½ to 226 inches)<br>120-inch: 4540 to 6910mm (178¾ to 272⅛ inches)<br>200-inch: 7640 to 11590mm (300⅞ to 456⅜ inches)<br>300-inch: 11500 to 17450mm (452⅞ to 687⅛ inches) |
| <4:3> | 34-inch: 1510 to 2320mm (59½ to 91⅜ inches)<br>80-inch: 3690 to 5620mm (145⅜ to 221⅜ inches)<br>100-inch: 4630 to 7050mm (182⅜ to 277⅝ inches)<br>120-inch: 5580 to 8480mm (219¾ to 333⅞ inches)<br>200-inch: 9370 to 14210mm (369 to 559½ inches)<br>245-inch: 11500 to 17440mm (452⅞ to 686⅝ inches) |

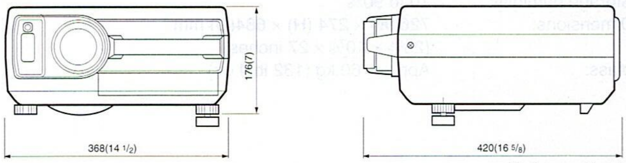
**General**

| | |
|---|---|
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M automatically selected |
| Resolution: | 600TV lines |
| Speakers: | Max. 2W+2W, 7 × 4cm stereo |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Max.: 350W, Stand by: 10W |
| Heat dissipation: | 1194.4BTU |
| Mass: | Approx. 10kg (22 lb) |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Operating humidity: | 35 to 85% |
| Storage temperature: | -20 to 60°C (-4 to 140°F) |
| Storage humidity: | 10 to 90% |

**Inputs/Outputs**

| | |
|---|---|
| VIDEO: | |
| Composite video: | BNC<br>1Vp-p2dB sync negative, 75Ω |
| S VIDEO: | Mini DIN 4-pin |
| Y (luminance): | 1Vp-p2dB sync negative, 75Ω |
| C (chrominance): | 0.3Vp-p2dB (PAL), 75Ω<br>Burst 0.286Vp-p 2dB (NTSC), 75Ω |
| Audio IN: | Phono (×2)<br>500mVrms, stereo, impedance more than 47kΩ |
| INPUT A | BNC × 4 |
| Analogue RGB/Component: | |
| R/R-Y: | 0.7Vp-p2dB positive, 75Ω |
| G: | 0.7Vp-p2dB positive, 75Ω |
| G with sync/Y: | 1Vp-p2dB sync negative, 75Ω |
| B/B-Y: | 0.7Vp-p2dB positive, 75Ω<br>Composite sync: 0.6 to 8Vp-p, high impedance, sync positive/negative |
| HDTV[*2] (Y/$P_B$/$P_R$): | |
| Y: | 1Vp-p2dB, 75Ω<br>Tri-level sync: 0.3Vp-p, Bi-level sync: 0.3Vp-p |
| $P_B$/$P_R$: | 0.35Vp-p2dB, 75Ω |
| HDTV[*2] (GBR): | |
| G with sync: | 1Vp-p2dB, 75Ω<br>Tri-level sync: 0.3Vp-p, Bi-level sync: 0.3Vp-p |
| B/R: | 0.7Vp-p2dB, 75Ω |
| Audio IN: | Phono (×2)<br>Stereo, 500mV rms, impedance more than 47kΩ |
| AUDIO OUT: (Variable out) | Phono (×2)<br>Max. 1Vrms, when input is 500mV rms, impedance less than 5kΩ |
| CONTROL S: | |
| IN PLUG IN POWER: | Stereo mini jack<br>5Vp-p, Plug in power DC 5V maximum output 60mA |
| OUT: | Stereo mini jack 5Vp-p |
| TRIG: | Mini jack<br>Power ON: DC 5V output impedance 4.7kΩ<br>Power OFF: 0V |

**Dimensions**



Unit: mm (inch)

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[*1] ANSI is a measuring method of American National Standard ANSI IT7.215.
[*2] HDTV: 1125/60 interlaced HDTV studio standard system.
[*3] PK-PJ500 is not available in some areas. For details, please consult your nearest Sony office.

## VPD-S1800QM (PAL/NTSC/SECAM/NTSC$_{4.43}$/PAL-M)

•Multiscan projector with DLP(Digital Light Processing) technology •Incomparable high brightness of 1,800 ANSI lumen[*1] •Three DMD (Digital Micromirror Device) panels for a total of 1,526,400 pixels (508,800 pixels × 3 panels) •Multiscan capability with a built-in scan converter: horizontal 15 to 65kHz, vertical 43 to 120Hz •Compatible with various signals: video, computer and HDTV[*2] •36 memorized preset data enables the connected signal sources to be automatically reproduced in optimum conditions •User-friendly joystick-type remote commander for easy operation •Power focus, power zoom and picture shift functions for installation flexibility •A maximum of 4 units can be stacked for surpassingly bright image reproduction •3 Optional focal lens available •Optional IFB Series interface boards, SIC Series signal interface cables and PC-1271M Signal interface switcher and IFU-1271M interface unit available for system versatility •RS-422A serial communication port available •Can be used with screens ranging from 100 to 600-inch in size

[*1] At AC 150 to 240V in Light Boost ON.
[*2] HDTV: 1125/60 interlaced HDTV studio standard system with the optional IFB-1301 incorporated.

| | |
|---|---|
| Supplied accessories: | Remote Commander RM-PJM800<br>Remote Commander cable (15 m)<br>Size AA (R6) battery (×2)<br>AC Power cord<br>Operating manual |
| Optional accessories: | 1.5 times zoom standard focus lens VPDL-ZP50<br>2 times zoom long focus lens VPDL-ZP80<br>Fixed short focus lens VPDL-FP30<br>Projector lamp (for replacement) PK-PJ1800<br>Suspension support PSS-70<br>Signal Adapter ADP-10 (HD D-sub15-pin to D-sub 9-pin for SIC Cable)<br>Signal Adapter ADP-20 (Macintosh to VGA adapter[*1])<br>Monitor cable SMF-400 (D-sub HD 15-pin to 5BNC)<br>Monitor cable SMF-401 (D-sub HD 15-pin to D-sub HD 15-pin)<br>Interface board IFB-12/20/21/1000/1301<br>Signal interface cable SIC-20A/20C/21/22<br>Multi cable[*2] SIC-M cable (14/14-pin, 1/5/15/25/50m)<br>9 pin remote cable RCC-5G/10G/30G (D-sub 9-pin to D-sub 9-pin for RS-422A port)<br>Mouse receiver RM-PJ21<br>Remote control receiver RM-PJ10<br>100-inch Flat Screen VPS-100FH[*2]<br>120-inch Flat Screen VPS-120FH[*2] |

## Specifications

### Optical

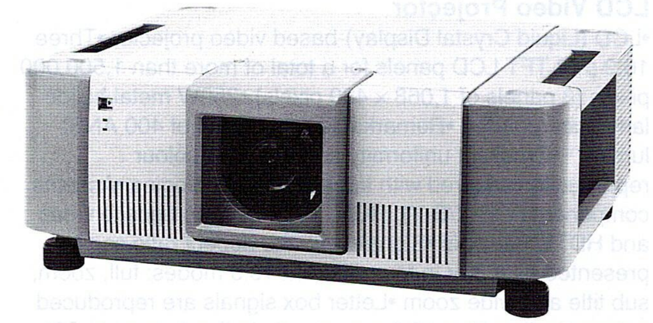
| | |
|---|---|
| Projection system: | 3 DMD panels, 1 lens projection system |
| DMD panel: | 0.7-inch × 3, total of 1,526,400 pixels |
| Light source: | 1kW Xenon lamp |
| Screen coverage: | 100 to 600-inch measured diagonally |
| Light output: | ANSI[*3]: 1800lm (at AC 150 to 240V in Light Boost ON)<br>1200lm (at AC 100 to 150V) |

### Signals

| | |
|---|---|
| Colour system: | PAL, NTSC, SECAM, NTSC$_{4.43}$, PAL-M |
| Resolution: | 848 × 600 pixel (RGB), 500 TV lines (VIDEO) |
| RGB input: | Horizontal: 15 to 65kHz<br>Vertical: 50 to 120Hz |

### General

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 1500W (AC 200 to 240V, Light Boost OFF)<br>1700W (AC 200 to 240V, Light Boost ON)<br>100W (Stand-by) |
| Operating temperature: | 10 to 35°C (50 to 95°F) |
| Operating humidity: | 35 to 85% |
| Storage temperature: | -20 to 60°C (-4 to 140°F) |
| Storage humidity: | 10 to 90% |
| Dimensions: | 726(W) × 274 (H) × 684(D) mm<br>(28⅝ × 10⅞ × 27 inches) |
| Mass: | Approx. 60 kg (132 lb 4 oz) |



### Inputs/Outputs

Video:
- Composite video: Loop-through BNC, 1Vp-p±2dB sync negative, 75Ω
- S Video:
  - Y IN: BNC, 1Vp-p±2dB sync negative, 75Ω
  - C IN: BNC, Burst 0.286Vp-p±2dB (NTSC), 75Ω; 0.3Vp-p±2dB (PAL), 75Ω
  - Y/C IN: Loop-through mini DIN 4-pin; Y (luminance): 1Vp-p±2dB sync negative, 75Ω; C (chrominance): Burst 0.286Vp-p±2dB (NTSC), 75Ω; 0.3Vp-p±2dB (PAL), 75Ω

Input A:
- Analogue RGB/Component: BNC × 5
  - R/R-Y: 0.7Vp-p±2dB positive, 75Ω
  - G: 0.7Vp-p±2dB positive, 75Ω,
  - G with sync/Y: 1Vp-p±2dB sync negative, 75Ω
  - B/B-Y: 0.7Vp-p±2dB positive, 75Ω
  - Sync/HD: Composite sync: 0.6 to 8Vp-p, high impedance, positive/negative; Horizontal sync: 0.6 to 8Vp-p, high impedance, positive/negative
  - VD: Vertical sync: 0.6 to 8Vp-p, high impedance, positive/negative

Input B:
- 14-pin multi connectors (Input: male, Output: female)

CONTROL S
- IN/PLUG IN POWER: Stereo mini-jack, 5Vp-p, DC5V, maximum output 60mA
- OUT: Stereo mini-jack

REMOTE
- RS-422A: D-sub 9 pin (female)

TRIG: Mini jack; Power On: DC5V, output impedance 4.7kΩ; Power Off: 0V

**Safety regulations** EN60 950 (TÜV), CE Class B

DLP™
A TEXAS INSTRUMENTS TECHNOLOGY

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[*1] VGA is a registerd tradmark of International Business Machines Corporation. Macintosh is a tradmark of Apple Computer Inc.
[*2] Some items are not available in some areas. For details, please consult your nearest Sony offices.
[*3] ANSI lumen is a measuring method of American National Standard IT7.228.

# VID-P50

## Video presentation stand

•Clear image reproduction with a high horizontal resolution of over 450 TV lines •12 times powered zoom capability •Fully automatic functions (auto focus, auto iris, auto white balance) for easy operation •Lighting unit as standard •Flip up and tilt camera head up to 90 degrees to capture images within the room •One-touch detachable close-up lens •Video output and S-video (Y/C) output connector •Document area is (300 × 300) enabling the use of A4 or letter size •Light weight, easy-to carry design

| | |
|---|---|
| Supplied accessories: | AC cable<br>Operation manual |

### Specifications

**General**

| | |
|---|---|
| Pick up device: | 1/3-inch Interline transfer CCD × 1 |
| Picture element: | 752(H) × 582(V) |
| Resolution: | More than 450 TV lines (horizontal) |
| S/N ratio: | More than 48dB |
| Lens: | F1.8 f=5.4~64.8 mm (×12 power zoom) |
| Shooting area: | 300 × 225 mm (WIDE)<br>($11^{7}/_{8}$ × $10^{1}/_{8}$ inches)<br>25 × 19 mm (TELE)<br>(1 × $^{3}/_{4}$ inches) |
| Focus: | Full Auto |
| Iris: | Full Auto |
| Lighting: | 4W fluorescent lamp × 1 |
| White balance: | Full Auto |
| Outputs: | Video (Phono connector × 1)<br>1Vp-p sync negative<br>S-video (4 pin mini DIN × 1)<br>Y: 1Vp-p, 75Ω sync negative<br>C: 0.286Vp-p, 75Ω (NTSC)<br>C: 0.300Vp-p, 75Ω (PAL) |
| Dimensions: | 335(W) × 525(H) × 355(D) mm<br>($13^{1}/_{4}$ × $20^{3}/_{4}$ × 14 inches)<br><when folded><br>335(W) × 70(H) × 550(D) mm<br>($13^{1}/_{4}$ × $2^{7}/_{8}$× $21^{3}/_{4}$ inches) |
| Mass: | 4.1 kg (9 lb 1 oz) |
| Power requirement: | AC 230V 50Hz 10W |

# VID-P100

## Video presentation stand

•Three-dimensional objects just as well as flat objects such as chart, drawings, books etc. can be displayed on TV monitors and projectors •420 TV lines resolution for superb picture quality •Built-in microphone amplifier with an audio output •Can be folded and carried like a briefcase •Built-in one chip CCD colour video camera with 10 times auto zoom lens •High speed auto focus •Auto iris/white balance •Built-in back light function •Video switcher function •Revolving camera head •Equipped with an RS-232C interface port

| | |
|---|---|
| Supplied accessories: | AC cable<br>Operation manual |

### Specifications

**General**

| | |
|---|---|
| Pick-up device: | 1/3 inch Interline Transfer CCD(Single chip) |
| Picture element: | 752(H) × 582(V)<br>Approx. 440,000 |
| Horizontal resolution: | 420 TV lines |
| Video signal system: | Phono (×2):<br>1.0Vp-p, 75Ω sync negative<br>S-VIDEO (4 pin mini DIN) (×2):<br>Y: 1.0Vp-p, 75Ω,sync negative<br>C: 0.3Vp-p, 75Ω |
| Video output: | Phono (×1), BNC (×1)<br>1.0Vp-p, sync negative, 75Ω<br>S-VIDEO OUT(4 pin mini DIN)<br>Y out 1.0Vp-p, sync negative, 75Ω<br>C out 0.3Vp-p,75Ω |
| Audio input: | Phono (×2), stereo, 47kΩ, -10dBu, unbalanced |
| Mic input: | 3.3kΩ, -60dBu unbalanced, Phono (×1) |
| Audio output: | Less than 600Ω, -10dBu unbalanced, Phono (×1) |
| Lighting: | 9W (×2) (Fluorescent lamp) |
| Back lighting: | 8W (×2) (Fluorescent lamp) |
| Object size to fill screen: | Zoom Wide. 310 × 235 mm<br>($12^{1}/_{4}$ × $9^{3}/_{8}$ inches)<br>Zoom Tele. 34 × 25.5 mm<br>($1^{3}/_{8}$ × $1^{1}/_{16}$ inches) |
| Power consumption: | 30W |
| Power requirements: | AC 230V, 50/60 Hz |
| Mass: | 7.8 kg (17 lb 3 oz) |
| Dimensions: | 572(W) × 684(H) × 620(D)mm<br>($22^{5}/_{8}$ × 27 × $24^{1}/_{2}$ inches) |

## VID-P300

### Video presentation stand

•Three-dimensional objects, charts, drawings, transparent sheets, slides etc. can be displayed on TV monitors and projectors •High horizontal resolution of 720 TV lines with 3 chip CCD colour video camera •RGB signal output for high picture quality •12-times powered zoom capability •Gen lock •The camera head angle change capability •Built-in back light function for transparent sheets, slides or posi films •RS-232C interface port for control from external computer •Can be folded for portability

| | |
|---|---|
| Supplied accessories: | AC cable<br>Operation manual |

### Specifications

**General**

| | |
|---|---|
| Pick-up device: | 1/2 inch interline transfer CCD (3 chip) |
| Picture element: | 752(H) × 582(V) |
| Horizontal resolution: | More than 720 TV lines |
| S/N ratio: | More than 58 dB |
| Lens: | F1.4, f=7.5-90 mm (×12 powered zoom) |
| Shooting area: | Zoom wide.<br>342 × 257 mm<br>(133/6 × 101/8 inches)<br>Zoom tele.<br>31.5 × 23.5 mm<br>($1^{1}/_{4} \times 1^{5}/_{16}$ inches) |
| Focus: | Powered |
| Iris: | Auto/Manual |
| Lighting: | 9W twin fluorescent lamp (×2) for arm light<br>8W fluorescent lamp (×2) for back light |
| B&W/colour: | Built-in (without RGB output) |
| Power requirement: | AC 230V |
| Power consumption: | 36W |
| Dimensions: | 572(W) × 912(H) × 620(D)mm<br>446(W) × 237(H) × 740(D)mm (when folded) |
| Mass: | Approx. 12.7 kg (26 lb 10 oz) |

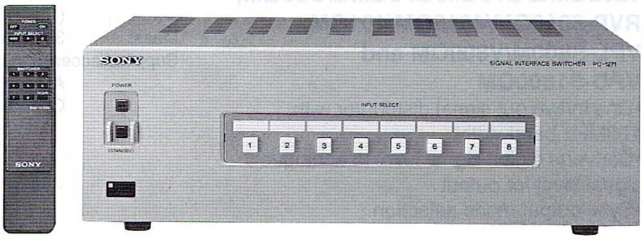
**Inputs/outputs**

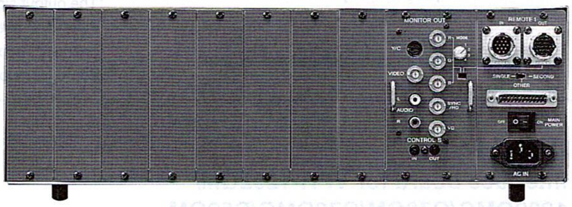
| | |
|---|---|
| Inputs: | Gen lock: BNC (×1), 75Ω sync negative<br>MIC: Phone (×1), 3.3kΩ, -60dBu, unbalanced |
| Output: | Video: Phono (×1), BNC (×1), 1.0Vp-p sync negative<br>S-video: 4-pin mini DIN (×1)<br>Y: 1.0Vp-p, 75Ω sync negative<br>C: 0.286Vp-p, 75Ω<br>RGB: BNC (× 4)<br>RGB: 0.7Vp-p, 75Ω<br>SYNC: 2.0Vp-p, 75Ω<br>Audio: Phono (×1), less than 600Ω, -10dBu, unbalanced |
| Control: | RS-232C interface port (D-sub 25-pin) |

# PC-1271M

### Signal interface switcher for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM and VPD-S1800QM

•Accepts up to eight signal inputs with IFB interface boards installed (a maximum of sixteen signal inputs with a second PC-1271M) •Connection to VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM, VPD-S1800QM via a single CCQ-BRS or SIC-M multi-cable •Incorporates cable length compensation to maintain the RGB bandwidth of 70MHz when using a CCQ-BRS or SIC-M cable of up to 50m (165 ft). With the cable length compensation function, the 150MHz RGB bandwidth is guaranteed for MONITOR OUT. (Compensation switch selectable according to cable length) •Can be remotely controlled via the REMOTE 2(D-sub 25-pin) with an external control unit •Last channel memory •Supplied RM-1270S remote control unit for easy operation •19-inch EIA standard rack mountable with supplied rack mount kit





| | |
|---|---|
| Supplied accessories: | Remote control unit: RM-1270S<br>AA Size battery (×2)<br>AC power cord<br>Rack mount with screws (one pair)<br>Operation manual<br>Input label (×2) |
| Optional accessories: | Interface Unit: IFU-1271M<br>Interface Board*: IFB-11/20/101/1000/1200/1301/3000<br>Signal Interface Cable: SIC-10/20A/20C/21/22 |

## Specifications

### General

| | |
|---|---|
| RGB bandwidth: | 150MHz (-3dB) |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Approx. 60W |
| Dimensions: | 424(W) × 133(H) × 290(D) mm<br>(16¾ × 5¼ × 11½ inches) |
| Mass: | 8kg (17 lb 10 oz) |

### Inputs

| | |
|---|---|
| Input 1 to 8: | (open for optional IFB Series input modules) |
| Remote 1: | 14-pin (male), from a second PC-1271M |
| Remote 2: | D-sub 25-pin (female) from the external control unit |
| Control S: | Loop-through Mini jack |

### Outputs

| | |
|---|---|
| Monitor out: | |
| Video: | BNC<br>1Vp-p, sync negative, 75Ω |
| Y/C: | 4-pin mini DIN<br>Y(luminance): 1Vp-p, sync negative, 75Ω<br>C(chrominance): 0.3Vp-p (PAL),<br>0.286Vp-p (NTSC), 75Ω |
| R/B: | BNC<br>0.7Vp-p, 75Ω |
| G/Sync on G: | BNC<br>0.7Vp-p, 75Ω (Non-composite)<br>1Vp-p, sync negative, 75Ω (Composite) |
| HD/VD/HV: | BNC<br>1Vp-p, positive/negative, 75Ω |
| Audio: | Phono<br>(stereo or monaural selectable)<br>-5dBu, impedance 1kΩ |
| Remote 1: | 14-pin (female), To VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM, VPD-S1800QM or first PC-1271M |

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* IFB-1301 can be used with VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM and VPD-S1800QM. IFB-3000 can be used with RVP-4015QM.

## IFU-1271M

### Interface unit for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM and VPD-S1800QM

- One in/two out signal distributor with 100MHz bandwidth*
- Converts digital signal level to analogue signal level for output
- Sync output mode selection

Inputs: (Open for an optional IFB Series input module)
Output: BNC ×5 (×2)
Phono (×2)
(stereo or monaural selectable)

Bandwidth: 120MHz (-3dB)
Power requirements:
AC 220 to 240V, 50/60Hz
Dimensions: 180(W) × 105(H) × 185(D)mm
(7⅛ × 4¼ × 7⅜ inches)
Mass: 3kg (6 lb 9.8 oz)
Supplied accessories:
AC power cord
Operation manual

SONY
INTERFACE UNIT IFU-1271
POWER
MAIN POWER
ON
OFF
OUTPUT
R/VIDEO
G/Y
B/C
SYNC/HD
VD
R
AUDIO
L
MODE
AC IN

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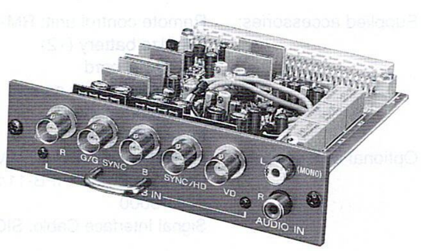
*The output signal from IFB-1000 is the same as the input. The output signal from IFB-1200 can be changed according to the selection switch on the board (component/RGB).

## IFB-11*

### Interface board for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM and PC-1271M/IFU-1271M

**Inputs**
RGB: Analogue, BNC (×5)
AUDIO: Phono
(stereo or monaural selectable)
Dimensions: 129(W) × 35(H) × 138(D) mm
(5⅛ × 1 7/16 × 5½ inches)
Mass: 180g (6.3 oz)



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*The IFB-11 is supplied with the VPH-1292QM/1292QMG, RVP-6010QM/4015QM.

## IFB-12

### Interface board for VPH-1292QM*/1292QMG*/G70QM/G70QMG/D50QM, RVP-6010QM*/4015QM*/401QM*, VPL-S800M/V800QM, VPD-S1800QM and PC-1271M/IFU-1271M

- Accepts analogue RGB, component (Y/R-Y/B-Y), HDTV (Y/PB/PR), HDTV (GBR), composite video and S video signals
- RGB bandwidth of 300MHz
- Cable compensation function for output signals (150MHz)

**Inputs/Outputs**
BNC (×5)
Phono
(stereo or monaural selectable)
Dimensions: 129(W) × 35(H) × 138(D) mm
(5⅛ × 1 7/16 × 5½ inches)
Mass: Approx. 200g (7 oz)

SYNC/HD
VD
Y/C
IN
ON
123456
L (MONO)
R
AUDIO

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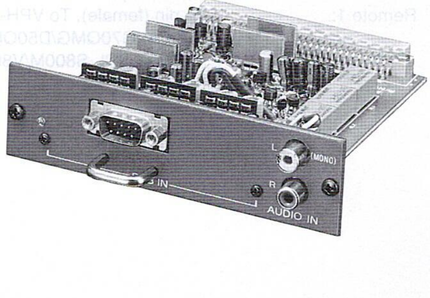
*For input only. Acceptable signals: Analg RGB, compoment (Y/R-Y/B-Y), composite video, S video.

## IFB-20

### Interface board for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM, VPD-S1800QM and PC-1271M/IFU-1271M

**Inputs**
RGB: Analogue, D-sub 9-pin (male)
AUDIO: Phono
(stereo or monaural selectable)
Dimensions: 129(W) × 35(H) × 138(D) mm
(5⅛ × 1 7/16 × 5½ inches)
Mass: 170g (6.0 oz)



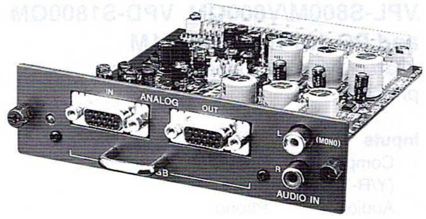
## IFB-21

### Interface board for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM, VPD-S1800QM and PC-1271M/IFU-1271M

•RGB bandwidth of 150MHz

**Inputs**
RGB: Analogue, HD D-sub 15-pin
AUDIO: Phono
(stereo or monaural selectable)

Dimensions: 129(W) × 35(H) × 138(D)mm
($5\frac{1}{8} \times 1\frac{7}{16} \times 5\frac{1}{2}$ inches)
Mass: Approx. 200g (7 oz)



## IFB-G70QMG

### Interface board for VPH-G70QMG

•Acceptable for composite video signal and S video signal input •Composite video signal and Y/C video signal are Loop-through

**Inputs/Outputs**
VIDEO: Loop-through BNC
1Vp-p±2dB sync negative, 75Ω
S VIDEO:
Y IN: BNC
1Vp-p±2dB sync negative, 75Ω
C IN: BNC
Burst 0.286Vp-p±2dB (NTSC), 75Ω
0.3Vp-p±2dB (PAL), 75Ω
Y/C IN: Y(luminance): 1Vp-p±2dB sync negative, 75Ω
C(chrominance):Burst 0.286Vp-p±2dB (NTSC), 75Ω 0.3Vp-p±2dB (PAL), 75Ω

**General**
Dimensions: 233 x 161 x 43mm
Mass: 210g (7.4oz)
Safety Reguration: CE

INPUT A
S VIDEO
TRIGGER
CONTROL S
REMOTE
RS-422A
ASL LINK
IN
OUT
VIDEO
PLUG IN POWER
INDEX

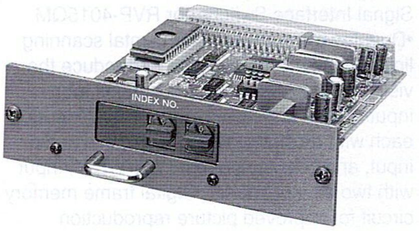
## IFB-101*

### Interface board for VPH-1292QM/1292QMG, RVP-6010QM/4015QM/401QM and PC-1271M

•Index control for maximum of 100 projectors
•Automatic power on/delayed power on function

Dimensions: 129(W) × 35(H) × 138(D)mm
($5\frac{1}{8} \times 1\frac{7}{16} \times 5\frac{1}{2}$ inches)
Mass: 0.15kg (5.3 oz)

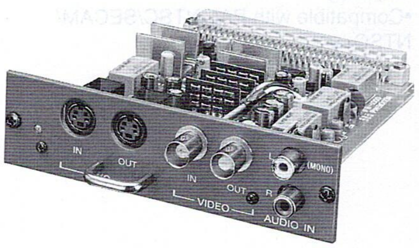
*Supplied with the RVP-401QM.



## IFB-1000*1

### Interface board for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM, VPD-S1800QM and PC-1271M/IFU-1271M

**Inputs**
Composite*2: Loop-through BNC
Y/C*2: Loop-through Mini DIN 4-pin
Audio: Phono
(stereo or monaural selectable)
Dimensions: 129(W) × 35(H) × 138(D)mm
($5\frac{1}{8} \times 1\frac{7}{16} \times 5\frac{1}{2}$ inches)
Mass: 160g (5.6 oz)

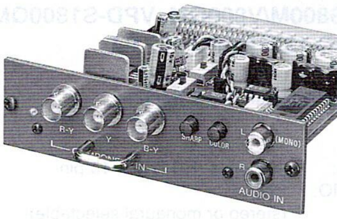


*1 Supplied with the RVP-4015QM.
*2 The Y/C IN has priority over the Composite IN.

## IFB-1200

### Interface board for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM, VPD-S1800QM and PC-1271M/IFU-1271M

- Can provide component input to a projector



**Inputs**

| | |
|---|---|
| Component: (Y/R-Y/B-Y) | BNC (×3) |
| Audio: | Phono<br>(stereo or monaural selectable) |
| Dimensions: | 129(W) × 35(H) × 138(D)mm<br>($5\frac{1}{8} \times 1\frac{7}{16} \times 5\frac{1}{2}$ inches) |
| Mass: | 0.18kg (6.3 oz) |

## IFB-1301

### Interface Board for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPD-S1800QM, PC-1271M/IFU-1271M

- HD (Y/PB/PR) input
- Converts Y/PB/PR signals to RGB signals
- Color, Hue and Sharpness adjustment available
- Audio (Left (Mono)/Center/Right) input

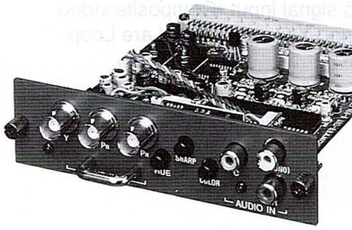
**Inputs**

| | |
|---|---|
| HD: | BNC<br>Y (luminance): 1Vp-p±2dB, 75Ω<br>PB/PR (component: ±0.35Vp-p, 75Ω |

**Output**

| | |
|---|---|
| G/Y: | 1Vp-p±2dB, 75Ω |
| B/R: | 0.7Vp-p±2dB, 75Ω |
| PB/PR: | 0.35Vp-p, 75Ω |
| AUDIO*: | Phono (stereo/monaural)<br>250mV rms, impedance more than 47kΩ |
| Dimension: | 129(W) × 35(H) × 138(D) mm<br>($5\frac{1}{8} \times 1\frac{7}{16} \times 5\frac{1}{2}$ inches) |
| Mass: | 200 g (7 oz) |

*Audio is not applicable for VPH-1292QM/1292QMG



## IFB-3000

### Interface board for RVP-4015QM and PC-1271M

- Designed for installation in the PC-1271M Signal Interface Switcher or RVP-4015QM
- Doubles the number of horizontal scanning lines to minimize line-flicker and reduce the visibility of scanning lines
- Contains four inputs; three composite video or Y/C inputs, each with an associated two channel audio input, and one component (Y/R-Y/B-Y) input with two channel audio
- Digital frame memory circuit for improved picture reproduction
  - Detects motion in a picture during the line doubling process for natural reproduction of moving pictures
  - Digital Noise Reducer
  - Aperture correction function for enhanced picture edges, vertically as well as horizontally
  - Three-dimensional Comb Filter for clear luminance/chrominance separation, with choice of either line or frame comb filtering
- Compatible with PAL/NTSC/SECAM/NTSC4.43*1

### Specifications

**General**

| | |
|---|---|
| Colour system: | PAL/NTSC /SECAM /NTSC4.43 (automatically selected) |
| Sampling frequency: | 14.3MHz |
| Power requirements: | DC 12V (supplied from the PC-1271M or RVP-4015QM) |
| Power consumption: | Approx. 20W |
| Dimensions: | 141(W) × 129(H) × 138(D) mm<br>($4\frac{5}{8} \times 5\frac{1}{8} \times 5\frac{1}{2}$ inches) |
| Mass: | 870g (1 lb 15 oz) |

**Inputs**

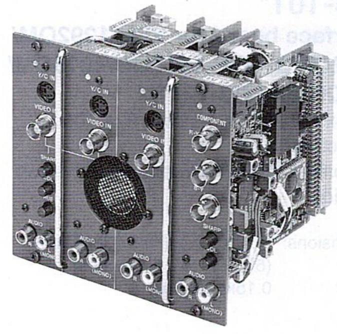
VIDEO

VIDEO 1 to 3

| | |
|---|---|
| Composite video*2: | BNC<br>1Vp-p, sync negative, 75Ω |
| Y/C*2: | Mini DIN 4-pin<br>Y (luminance): 1Vp-p, sync negative, 75Ω<br>C (chrominance): 0.3Vp-p (PAL), 0.286Vp-p (NTSC), 75Ω |

VIDEO 4

| | |
|---|---|
| Y/R-Y/B-Y*3: | BNC<br>R-Y/B-Y: 0.7Vp-p, 75Ω<br>Y:1.0Vp-p, sync negative, 75Ω |
| AUDIO | Phono (stereo or monaural selectable) |



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*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 The Y/C input have priority over the composite video input.
*3 525/60 system: video amplitude 100/0/75 colour bars.
625/50 system: video amplitude 100/0/100 colour bars.

## VPS-515RF/415RF

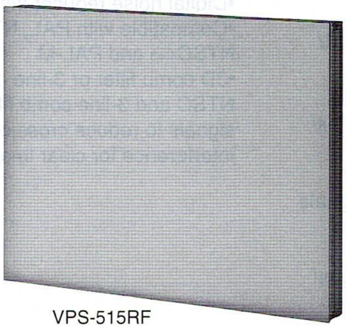
- Screen with ultra-thin 0.2 mm screen surround for RVP-511DMS/411DMS
- Little disturbance of reproduced images
- Suitable for permanent applications

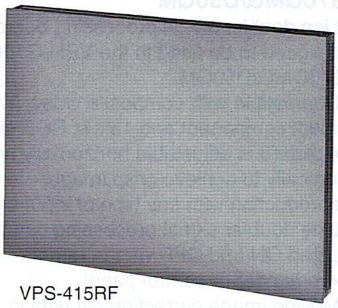
Dimensions:

| | |
|---|---|
| VPS-515RF: | 1011.4(W) × 84.2(D) × 760.4(H) mm<br>($39^{7}/_{8}$ × $3^{3}/_{8}$ × 30 inches) |
| VPS-415RF: | 823.4(W) × 84.2(D) × 620.4(H) mm<br>($32^{1}/_{2}$ × $3^{3}/_{8}$ × $24^{1}/_{2}$ inches) |

Mass:

| | |
|---|---|
| VPS-515RF: | 5.2 kg (11 lb 7 oz) |
| VPS-415RF: | 3.7 kg (8 lb 3 oz) |


VPS-515RF


VPS-415RF

## VPS-511RF/411RF

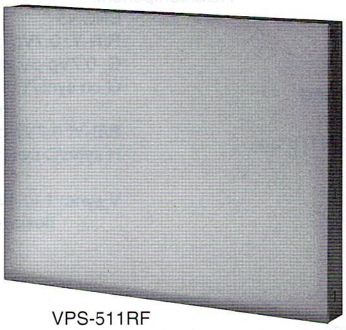
- Screen with durable 1.7 mm screen surround for RVP-511DMS/411DMS
- Suitable for general applications

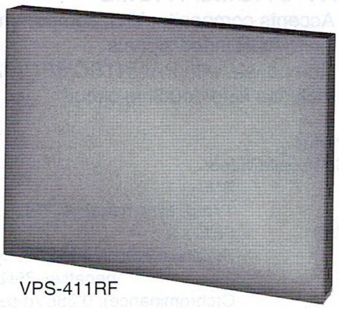
Dimensions:

| | |
|---|---|
| VPS-511RF: | 1011 (W) × 87.1(D) × 760 (H) mm<br>($39^{7}/_{8}$ × $3^{1}/_{2}$ × 30 inches) |
| VPS-411RF: | 823 (W) × 87.1(D) × 620 (H) mm<br>($32^{1}/_{2}$ × $3^{1}/_{2}$ × $24^{1}/_{2}$ inches) |

Mass:

| | |
|---|---|
| VPS-511RF: | 7.9 kg (17 lb 7 oz) |
| VPS-411RF: | 6.2 kg (13 lb 11 oz) |


VPS-511RF


VPS-411RF

## PWR-B511A/B411A

### Installation stand for RVP-511DMS/411DMS

- Base stand for the RVP-511DMS/411DMS with casters and height-adjuster
- For up to 8 (PWR-B511A for RVP-511DMS) or 10 (PWR-B411A for RVP-411DMS) vertical stacks*

*In some cases, reinforcement against earthquakes may be required

| | | |
|---|---|---|
| Dimension: | PWR-B511A: | 878(W) × 587.7(H) × 1126(D) mm<br>($34^{5}/_{8}$ × $23^{1}/_{4}$ × $44^{3}/_{8}$ inches) |
| | PWR-B411A: | 690(W) × 587.7(H) × 934(D) mm<br>($27^{1}/_{4}$ × $23^{1}/_{4}$ × $36^{7}/_{8}$ inches) |
| Mass: | PWR-B511A: | 50 kg (110 lb 4 oz) |
| | PWR-B411A: | 44 kg (97 lb) |

PWR-B511A

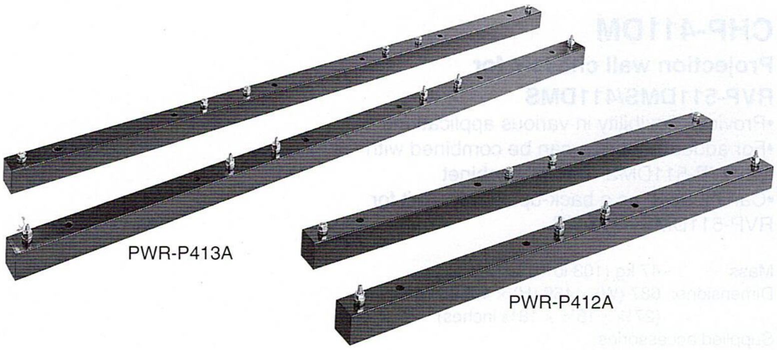
PWR-B411A

## PWR-P512A/P513A/P412A/P413A

### Position beams for RVP-511DMS/411DMS

- A pair of position beams for dual or double mount horizontally of RVP-511DMS/ 411DMS
- Can be utilized in combination with other PWR-P513A/P512A/P412A/ P413A beams for more than triple mount.
- PWR-P512A for dual mount of the RVP-511DMS
- PWR-P513A for triple mount of the RVP-511DMS
- PWR-P412A for dual mount of the RVP-411DMS
- PWR-P413A for triple mount of the RVP-411DMS

| | | |
|---|---|---|
| Dimension: | PWR-P512A: | 1940(W) × 80(H) × 80(D) mm<br>($76^{1}/_{2}$ × $3^{1}/_{4}$ × $3^{1}/_{4}$ inches) |
| | PWR-P513A: | 2952(W) × 80(H) × 80(D) mm<br>($116^{1}/_{4}$ × $3^{1}/_{4}$ × $3^{1}/_{4}$ inches) |
| | PWR-P412A: | 1564(W) × 80(H) × 80(D) mm<br>($61^{5}/_{8}$ × $3^{1}/_{4}$ × $3^{1}/_{4}$ inches) |
| | PWR-P413A: | 2388(W) × 80(H) × 80(D) mm<br>($94^{1}/_{8}$ × $3^{1}/_{4}$ × $3^{1}/_{4}$ inches) |


PWR-P413A

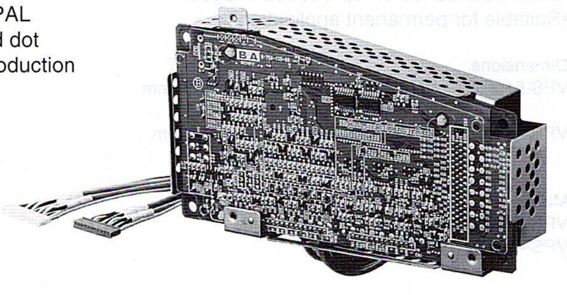
PWR-P412A

| | | |
|---|---|---|
| Mass: | PWR-P512A: | 24 kg (52 lb 15 oz) |
| | PWR-P513A: | 36 kg (79 lb 6 oz) |
| | PWR-P412A: | 20 kg (44 lb 1 oz) |
| | PWR-P413A: | 30 kg (66 lb 2 oz) |

## EXB-DS10

### Extension board for VPH-G70QM/G70QMG/D50QM

- Line doubler signal processing board designed to be fitted in the VPH-G70QM/G70QMG/D50QM
- Compatible with composite video, Y/C video, component and 15kHz RGB signals
- Aperture is adjustable horizontally and vertically to achieve crisp image reproduction with any type of input signal
- Line doubler signal processing can be turned ON and OFF via the remote commander or control panel
- Moving image correction circuitry is incorporated for natural reproduction of line-doubled fast-moving images
- Digital noise reducer incorporated
- Compatible with PAL, NTSC, SECAM, NTSC4.43 and PAL-M
- 3D comb filter or 3-line comb filter for NTSC and 3-line comb filter for PAL signals to reduce cross color and dot interference for clear image reproduction



## PWB-411D

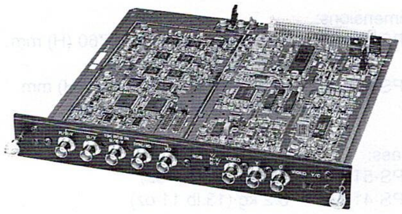
### Composite video input board for RVP-511DMS/411DMS

- Accepts composite, Y/C, component and 15kHz RGB video signals
- Compatible with PAL/NTSC/SECAM/NTSC4.43
- Includes field doubling circuit

**Inputs**

Composite video:
BNC × 1
1Vp-p, sync negative, 75Ω
Y/C: BNC × 2
Y(luminance): 1Vp-p±2dB, sync negative, 75Ω
C(chrominance): 0.286Vp-p±2dB, 75Ω (NTSC)
0.3Vp-p±2dB, 75Ω (PAL)

RGB/component:
BNC ×5
R/R-Y: 0.7Vp-p±2dB, 75Ω
G: 0.7Vp-p±2dB, 75Ω
G on sync/Y: 1Vp-p±2dB, sync negative, 75Ω
B/B-Y: 0.7Vp-p±2dB, 75Ω
H sync/C sync: 1 to 4Vp-p, 75Ω, positive/negative
V sync: 1 to 4Vp-p, 75Ω, positive/negative



## PWK-411D

### System Control Kit for RVP-511DMS/411DMS

Includes accessories for system control:

- Infrared remote control unit **RM-PJ1292**
  - Wired/wireless remote control unit
  - Full remote operation
  - Function keys can be illuminated for
  - operation in dark rooms
- SIRCS cable (10m)
- Batteries (AA size × 3)
- System manual

RM-PJ1292

## CHP-411DM

### Projection wall chassis for RVP-511DMS/411DMS

- Provides flexibility in various applications
- For added flexibility, can be combined with the RVP-511DMS/411DMS cabinet
- Can be used as a back-up chassis unit for RVP-511DMS/411DMS

| | |
|---|---|
| Mass: | 47 kg (103 lb 10 oz) |
| Dimensions: | 687 (W) × 469 (H) × 465 (D) mm<br>(27⅛ × 18½ × 18⅜ inches) |

Supplied accessories:
AC power cord
Remote control cable (1.2 m)
Operation manual

## SIC-10

### Signal interface cable for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM, VPD-S1800QM and PC-1271M

| | |
|---|---|
| Connector: | 5BNC/5BNC |
| Length: | 10m (32.8 ft) |

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## SIC-20A/20C

### Signal interface cable for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM, VPD-S1800QM and PC-1271M

- SIC-20A for Macintosh II Series
- SIC-20C for Power Macintosh, Macintosh LC, PowerBook, Quadra and Centris

| | |
|---|---|
| Connector: | D-sub 15-pin to local monitor (female)<br>D-sub 15-pin to computer (male)<br>D-sub 9-pin to IFB-20 (female) |
| Length: | 2m (6.6ft) overall, 0.2m (0.7ft) branch |

SIC-20C

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## SIC-21

### Signal interface cable for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM, VPD-S1800QM and PC-1271M

| | |
|---|---|
| Connector: | D-sub 9-pin to local monitor (female)<br>D-sub 9-pin to computer (male)<br>D-sub 9-pin to IFB-20 (female) |
| Length: | 2m (6.6 ft) overall, 0.2m (0.7ft) branch |

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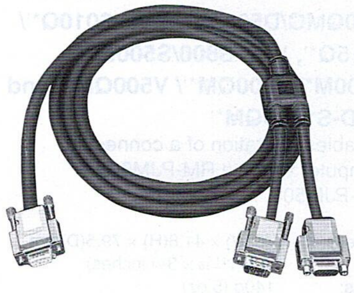
## SIC-22

### Signal interface cable for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM, VPL-S800M/V800QM, VPD-S1800QM and PC-1271M

| | |
|---|---|
| Connector: | High Density 15-pin to local monitor (female)<br>High Density 15-pin to computer (male)<br>D-sub 9-pin to IFB-20 (female) |
| Length: | 2m (6.6 ft) overall, 0.2m (0.7 ft) branch |



## RM-1271

**Remote control unit for RVP-401QM and PC-1271M**

- Can remotely control all operating functions of projectors and switchers, such as input selection, RGB size/Shift, centering and picture control
- Can control index functions of projectors and switchers

| | |
|---|---|
| Power requirements: | 4.5V DC |
| Dimensions: | 175(W) × 35(H) × 114(D)mm<br>(7 × 1 7/16 × 4½ inches) |
| Mass: | 0.28Kg (9.8 oz) |

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## RM-1270S

**Remote control unit for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/401QM and PC-1271M***

- Can remotely control input selection and power on/off of the projector and switcher

| | |
|---|---|
| Dimensions: | 40(W) × 20(H) × 175(D)mm<br>(1 5/8 × 1 3/16 × 7 inches) |
| Mass: | 55g (2 oz) |

*RM-1270S is supplied with the PC-1271M.

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## RM-PJ10

**Remote control receiver for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, RVP-6010QM/4015QM/401QM* and VPL-S800M/S500E/S500M/V800QM/V500QM**

| | |
|---|---|
| Power requirements: | DC 6V |
| Dimensions: | 100(W) × 50(H) × 57(D)mm<br>(4 × 2 × 2 1/4 inches)<br>(including mounting bracket) |
| Mass: | 0.1kg (3.5 oz)<br>(including mounting bracket) |
| Supplied accessories: | Remote control cable: 15m<br>(450 feet)<br>Screws |

*An AC adapter (AC-E60M) is necessary when using the RM-PJ10 with the RVP-401QM.

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## RM-PJ21

**Mouse receiver for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM*1, RVP-6010Q*1/4015Q*1, VPL-S800/S500E*2/S500M*2/V800QM*1/ V500QM*2 and VPD-S1800QM*1**

- Enables operation of a connected computer with the RM-PJM800 or RM-PJM500

| | |
|---|---|
| Dimensions: | 75(W) × 41.8(H) × 79.5(D)mm<br>(3 × 1 11/16 × 3¼ inches) |
| Mass: | 140g (5 oz) |

RM-PJ21

*1 Should be utilized with the RM-PJM800.

*2 Supplied with the VPL-S500E/S500M/V500QM.

## RM-PJM800

### Remote control unit for VPH-1292QM/1292QMG*1/G70QM/ G70QMG/D50QM, RVP-6010QM*1/ 4015QM*1/401QM*1/511DMS/ 411DMS*1, VPL-S800M*2/S500E*1/ S500M*1/V800QM*2/V500QM/ W400QM*3 and VPD-S1800QM*2

- Wireless remote control unit for presentations
- Can also be used to control the PC-1271M
- Power on/off and input selection operation
- Computer mouse control when used with RM-PJ21

| | |
|---|---|
| Power requirements: | DC 5V (Size AA (R6) battery × 2) |
| Dimensions: | 45.5(W) × 22.5(H) × 215.5(D)mm<br>(1 13/16 × 29/32 × 8½ inches) |
| Mass: | 94g (3 oz) |

*1 For mouse function and input selection only.

*2 RM-PJM800 is supplied with the VPD-S1800QM, VPL-S800M and V800QM

*3 Mouse function is not applicable for VPL-W400QM.

## RM-PJ1000

### Remote control unit for VPH-1292QM/1292QMG/G70QM/ G70QMG*/ D50QM*, RVP-6010QM/ 4015QM/401QM/511DMS/411DMS, VPL-S800M/S500E/S500M/V800QM/ V500QM/W400QM and VPD-S1800QM

- Wired/wireless remote control unit for setup and operation
- Full remote operation
- Function keys can be illuminated for operation in dark rooms

* RM-PJ1000 is supplied with the VPH-G70QM/ G70QMG/D50QM.

## VPS-120FH/100FH

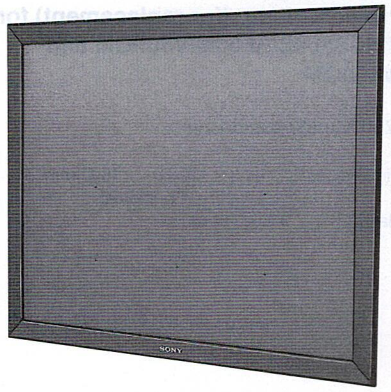
### Video screen for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM/ 1044QM/1001QM, VPL-S800M/S500E/S500M/V800QM/V500QM/W400QM, VPD-S1800QM

| | VPS-120FH | VPS-100FH |
|---|---|---|
| Screen size | 120-inch | 100-inch compatible |
| Construction | Beaded glass high-efficiency flat screen with winding mechanism | |
| Dimensions | 2780(W) × 2545(H)mm<br>(109½ × 100¼ inches) | 200(W) × 1765(H)mm<br>(86¾ × 69 1/2 inches) |
| Mass | 21 kg (46 lb 5 oz) | 8 kg (17 lb 10 oz) |

## VPS-702R

### 70-inch rear screen for VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM/1044QM/1001QM

| | VPS-702R |
|---|---|
| Screen size | 70-inch |
| Screen pitch | 0.72mm (1/32 inches) |
| Construction | Rear projection, 70-inch acrylic plastic screen, Fresnel, lenticular type with Black stripe |
| Dimensions | Max. outer size: 1465(W) × 1110(H) × 4(D)mm (57¾ × 43⅜ × 3/16 inches)<br>Valid screen size: 1427(W) × 1070(H)mm (56¼ × 42¼ inches) |
| Mass | 7.9 kg (17 lb 7 oz) |



## VPF-701R

### Rear screen frame for VPS-702R

Dimensions: Outer size:
1597(W) × 1240(H) × 30(D)mm
(63 × 48⅞ × 1 3/16 inches)
Inner size:
1427(W) × 1070(H)mm
(56¼ × 42¼ inches)
Mass: 8.5 kg (18 lb 11.8 oz)
Supplied accessories:
Bracket, screws

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## PSS-10/70/500/722/800/1270/1272

**Suspension support:**
**PSS-10* for PSS-70/722/800/1270/1272**
**PSS-70 for VPH-G70QM/G70QMG/D50QM**
**PSS-500 for VPL-500QM/W400QM**
**PSS-722 for VPH-1044QM/1001QM**
**PSS-800 for VPL-S800M/V800QM**
**PSS-1270 for VPH-1292QM/1292QMG**

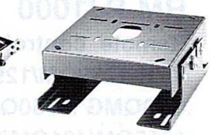
1. Direct installation on the ceiling—
   PSS-70/500/722/800/1270/1272
2. Installation on the ceiling (height adjustable)—
   PSS-10+PSS-70 or PSS-722 or PSS-800 or PSS-1270 or PSS-1272

Mass: PSS-10: 10.3 kg (22 lb 11 oz)
PSS-70: 9.0 kg (19 lb 13 oz)
PSS-500: 3.0 kg (61 lb 10 oz)
PSS-722: 1.8 kg (3 lb 15 oz)
PSS-800: 5.8 kg (12 lb 13 oz)
PSS-1270: 7.8 kg (17 lb 3 oz)
PSS-1272: 6 kg (13 lb 4 oz)

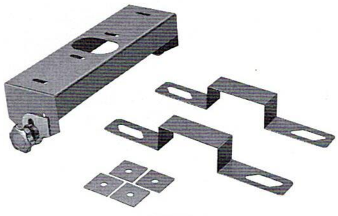
PSS-70

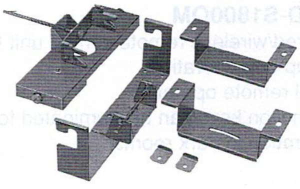
PSS-500

PSS-1272


PSS-800

PSS-10


PSS-722


PSS-1270

* PSS-10 cannot be used when installing the VPH-1292QM/1292QMG with PSS-1270.

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## VPHL-9270

### Projection lens for VPH-1292QM/1292QMG

- Can be used for screen size of 70 to 90-inch

F1.2/157mm
Dimensions: 181(W) × 181(H) × 232(D)mm
(7¼ × 7¼ × 9¼ inches)
Mass: 5.4 kg (11lb 14 oz)

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## PK-PJ500*

### Projector lamp (for replacement) for VPL-S500E/S500M/V500QM and W400QM

- 250W metal halide lamp

Dimensions: 104(W) × 122(H) × 115(D)mm
(4⅛ × 4⅞ × 4⅝ inches)
Mass: 390 g (14 oz)

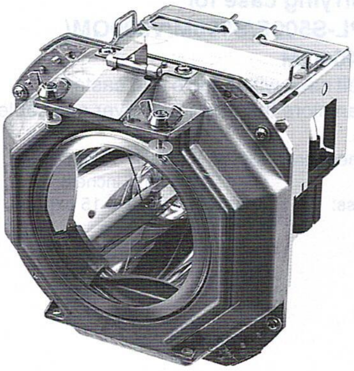
*PK-PJ500 is not available in some areas. Please consult your nearest Sony office.

## PK-PJ800*

### Projector lamp (for replacement) for VPL-S800M/V800QM

- 400W metal halide lamp

Dimensions: 140(W) × 142(H) × 147(D)mm
(5⅝ × 5⅝ × 5⅞ inches)
Mass: 820 g (1 lb 13 oz)



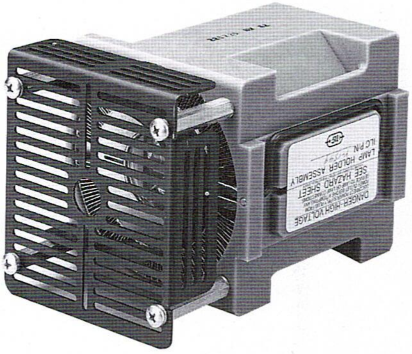
*PK-PJ800 is not available in some areas. Please consult your nearest Sony office.

## PK-PJ1800

### Projector lamp (for replacement) for VPD-S1800QM

- 1kw Xenon lamp

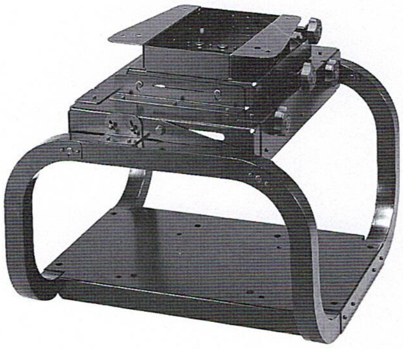
Dimensions: 105(W) × 156(D) × 100(H)mm
(4¼ × 6¼ × 4 inches)
Mass: Approx. 1900 g (4 lb 3 oz)



## SU-PJ800

### Projector stand (for twin stacking) for VPL-S800M/V800QM

Dimensions: 582(W) × 479(H) × 640(D)mm
(23 × 18⅞ × 25¼ inches)
Mass: 24kg (52 lb 15 oz)

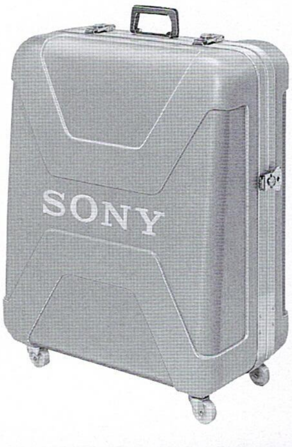


## VLC-1040

### Carrying case for VPH-1044QM/1001QM

- Suitable for transportation or storage

Dimensions: 640(W) × 810(H) × 355(D) mm
(25¼ × 32 × 14 inches)
Mass: 10 kg (22 lb 1 oz)



## VLC-500

**Carrying case for VPL-S500E/S500M/V500QM/ W400QM**

- Soft case with handle and caster
- Can store the mouse receiver and cables

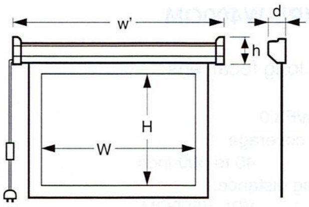
Dimensions: 430(W) × 622(H) × 298(D) mm (17 × 24½ × 11¾ inches)
Mass: Approx. 4.5 kg (9 lb 15 oz)

## VPE/VPL/VPM series (by Aurora)

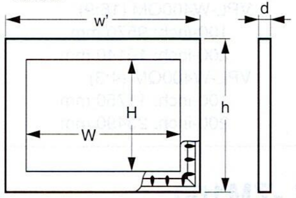
### Video screen for 1044QM/1001QM

| Type | Model name | Material | Screen size (W × H)mm | Dimensions (W × H × D)mm | Mass (kg) | Screen seam |
|---|---|---|---|---|---|---|
| Motor drive | VPE-150 (150-inch) | micro beads on white mat | 3048 × 2286 (120 × 90.0 inches) | 3455 × 150 × 118 (136 × 5.9 × 4.6 inches) | 26 | horizontal (1) |
| | VPE-170 (170-inch) | micro beads on white mat | 3454 × 2591 (136 × 102 inches) | 3862 × 150 × 118 (152 × 5.9 × 4.6 inches) | 30 | horizontal (1) |
| | VPE-200 (200-inch) | micro beads on white mat | 4064 × 3048 (160 × 120 inches) | 5812 × 310 × 248 (228.8 × 12.2 × 9.8 inches) | 129 | horizontal (1) |
| | VPE-220 (220-inch) | micro beads on white mat | 4470 × 3353 (176 × 132 inches) | 6238 × 310 × 248 (245.6 × 12.2 × 9.8 inches) | 140 | horizontal (1) |
| | VPE-250 (250-inch) | micro beads on white mat | 5080 × 3810 (200 × 150 inches) | 6928 × 310 × 248 (272.8 × 12.2 × 9.8 inches) | 150 | horizontal (2) |
| Tension | VPL-150 (150-inch) | micro beads on white mat | 3048 × 2286 (120 × 90 inches) | 3448 × 2286 × 55 (135.8 × 90 × 2.2 inches) | 36 | vertical (1) |
| | VPL-170 (170-inch) | micro beads on white mat | 3454 × 2591 (136 × 102 inches) | 3854 × 2991 × 55 (151.7 × 117.7 × 2.2 inches) | 41 | vertical (1) |
| | VPL-200 (200-inch) | micro beads on white mat | 4064 × 3048 (160 × 120 inches) | 4664 × 3648 × 55 (183.6 × 143.6 × 2.2 inches) | 48 | vertical (2) |
| | VPL-220 (220-inch) | micro beads on white mat | 4470 × 3353 (176 × 132 inches) | 5070 × 3953 × 55 (199.6 × 155.6 × 2.2 inches) | 53 | vertical (2) |
| | VPL-250 (250-inch) | micro beads on white mat | 5080 × 3810 (200 × 150 inches) | 5680 × 4410 × 55 (223.6 × 173.6 × 2.2 inches) | 60 | vertical (2) |
| Hang.up | VPM-150 (150-inch) | micro beads on white mat | 3048 × 2286 (120 × 90 inches) | 3292 × 2456 × 35 (129.6 × 96.7 × 1.4 inches) | 9.5 | horizontal (1) |
| | VPM-170 (170-inch) | micro beads on white mat | 3454 × 2591 (136 × 102 inches) | 3698 × 2761 × 35 (145.6 × 108.7 × 1.4 inches) | 11 | horizontal (1) |
| | VPM-200 (200-inch) | micro beads on white mat | 4064 × 3048 (160 × 120 inches) | 4584 × 3488 × 35 (180.5 × 137.3 × 1.4 inches) | 12 | horizontal (1) |
| | VPM-220 (220-inch) | micro beads on white mat | 4470 × 3353 (176 × 132 inches) | 5010 × 3813 × 35 (197.2 × 150.1 × 1.4 inches) | 13 | horizontal (1) |
| | VPM-250 (250-inch) | micro beads on white mat | 5080 × 3810 (200 × 150 inches) | 5700 × 4350 × 35 (224.4 × 171.2 × 1.4 inches) | 15 | horizontal (2) |

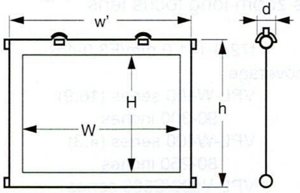
Motor drive



Tension



Hang-up



## VPLL-FM100

### Projection lens for VPL-V500QM and VPL-W400QM

- Fixed long focal lens

f130mm/F3.0
Screen coverage:
40 to 300-inch
Throwing distance:
VPL-V500QM
100-inch: 9860 mm
200-inch: 19720 mm
VPL-W400QM (16:9)
100-inch: 9570 mm
200-inch: 19140 mm
VPL-W400QM (4:3)
100-inch: 11750 mm
200-inch: 23490 mm

Dimensions: 95(W) × 85(H) × 175(D) mm
(3¾ × 3⅜ × 7 inches)
Mass: 670g (1 lb 8 oz)

## VPLL-ZM100

### Projection lens for VPL-S500E/S500M/V500QM and W400QM

- 2 times zoom long focus lens

Lens: f72.3-141.0 mm/F3.0-4.6
Screen coverage:
VPL-W400 series (16:9)
90-300 inches
VPL-W400 series (4:3)
80-250 inches
VPL-V500/S500 series
50-300 inches

Throwing distance:
VPL-W400 series (16:9)
100-inch: 5330-10120 mm
200-inch: 10820-20260 mm
VPL-W400 series (4:3)
100-inch: 6580-12420 mm
200-inch: 13310-24870 mm
VPL-V500/S500 series
100-inch: 5500-10430 mm
200-inch: 11150-20880 mm
Dimensions: Ø 86 mm, length 233.8 mm
(Ø 3 1/2, length 9 7/32 inches)
Mass: Approx. 1650 g (3 lb 10 oz)

## VPLL-FM30

### Projection lens for VPL-S800M/S500E/S500M/V800QM/V500QM/W400QM

- FIxed short focus lens

Lens: f37mm/F3.5
Screen coverage:
VPL-W400 series (16:9)
40-300 inches
VPL-W400 series (4:3)
40-240 inches
VPL-V500/V800 series
40-290 inches
VPL-S500/S800 series
40-290 inches

Throwing distance:
VPL-W400 series (16:9)
100-inch: 2700 mm
200-inch: 5470 mm
VPL-W400 series (4:3)
100-inch: 3330 mm
200-inch: 6720 mm
VPL-V500/V800 series
100-inch: 2790 mm
200-inch: 5640 mm
VPL-S500/S800 series
100-inch: 2790 mm
200-inch: 5640 mm
Dimensions: Ø 120 mm, length 209 mm
(Ø 4 3/4, length 8 1/4 inches)
Mass: Approx. 2100 g (4 lb 10 oz)

## VPLL-FM20

### Projection lens for VPL-S800M/V800QM

- Fixed short focus lens
- For rear projection

Lens: f24.24mm/F3.0
Screen coverage:
50-200 inches
Throwing distance:
100-inch: 1790 mm
200-inch: 3640 mm
Dimensions: Ø 120 mm, length 204 mm
(Ø 4 3/4, length 8 1/32 inches)
Mass: Approx. 1530 g (3 lb 6 oz)

# 2-7 Lens for LCD projectors

## VPLL-ZP100

### Projection lens for VPL-S800M/ V800QM

- 2 times zoom long focus lens

Lens: f72.3-141.0mm/F3.0-4.6
Screen coverage:
80-300 inches
Throwing distance:
100-inch: 5500-10430 mm
200-inch: 11150-20880 mm
Dimensions: Ø 86 mm, length 233.8 mm
(Ø 3 1/2, length 9 7/32 inches)
Mass: Approx. 1700 g (3 lb 12 oz)

## VPLL-ZP40

### Projection lens for VPL-S800M

- 1.5 times zoom long focus lens

Lens: f50-75mm/F2.5-3.1
Screen coverage:
40-300 inches
Throwing distance:
100-inch: 3820-5580 mm
200-inch: 7730-11250 mm
Dimensions: Ø 86mm, length 183.2 mm
(Ø 3 1/2, length 7 7/32 inches)
Mass: Approx. 1300 g (2 lb 14 oz)

# 2-8 Lens for DLP projector

## VPDL-ZP80

### Projection lens for VPD-S1800QM

- 2 times zoom long focus lens

Lens: f52.5-105 mm/F3.0
Screen coverage:
100-600 inches
Throwing distance:
100-inch: 7790-15620 mm
300-inch: 23480-46990 mm
500-inch: 39170-78370 mm
Dimensions: 54(D min) × 86(D max) × 160(H) mm
(2¼ × 3½ x 6⅜ inches)
Mass: Approx. 870 g (1 lb 15 oz)

---

## VPDL-ZP50

### Projection lens for VPD-S1800QM

- 1.5 times zoom long focus lens

Lens: f35-52.5 mm/F3.0
Screen coverage:
100-600 inches
Throwing distance:
100-inch: 5200-7860 mm
300-inch: 15660-23550 mm
500-inch: 26120-39240 mm
Dimensions: 54(D min) × 69(D max) × 155(H) mm
(2¼ × 2¾ × 6⅛ inches)
Mass: Approx. 770 g (1 lb 11 oz)

## VPDL-FP30

### Projection lens for VPD-S1800QM

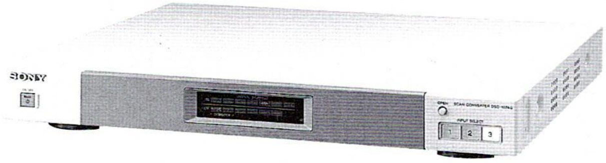
- Fixed short focus lens

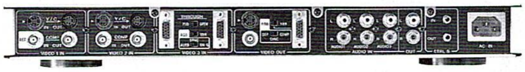
Lens: f17.5mm/F3.0
Screen coverage:
100-600 inches
Throwing distance:
100-inch: 2600 mm
300-inch: 7830 mm
500-inch: 13060 mm
Dimensions: 53(D min) × 78(D max) × 155(H) mm
(2⅛ × 3⅛ × 6⅛ inches)
Mass: Approx. 700 g (1 lb 7 oz)

# DSC-1024G

## Digital Scan Converter

•Versatile upward and downward digital scan converter •Input accepted in the 15.6 to 70kHz horizontal frequency range and the 50 to 120Hz vertical frequency range and output at an industry standard 15.6kHz, 31.5kHz, 37kHz, 48kHz or 64kHz frequency •Built-in transcoder for universal conversions between video signal formats •Genlock function is available •PAL/NTSC conversion capability •Scan doubler capability •Automatic input signal recognition •Variable offset sampling and High-density vertical interpolation capability for conversion resolutions •Adjustable aspect ratios •Built-in test pattern generator •Zoom, pan and freeze frame functions provided for easy operation •On-screen display for adjustment/operation





| | |
|---|---|
| Supplied accessories: | D-sub 15-pin to 5BNC cable (6ft.)<br>Operation manual |
| Optional accessories: | Rack mount bracket: MB-510<br>D-sub 15-pin to 5 BNC cable: SMF-400<br>D-sub 15-pin to D-sub 15-pin cable: SMF-401<br>Remote commander: RM-PJ1000, RM-PJ1292, RM-1271, RM-PJM500, RM-PJM800, etc. |

### Specifications

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 0.25A (max.), 50/60Hz |
| Power consumption: | 30W (max. power on), 3W (typical power off) |
| Operating temperature: | 0 to 35°C (50 to 96°F) |
| Dimensions: | 424(W) × 44(H) × 354(D)mm<br>(16¾ × 1¾ × 4inches) |
| Mass: | 4.1 kg (9 lb 1 oz) |

**Input connector**

| | |
|---|---|
| Video 1: | Composite: Loop-through BNC<br>S Video: Loop-through Mini DIN 4-pin |
| Video 2: | Composite: Loop-through BNC<br>S Video: Loop-through Mini DIN 4-pin |
| Video 3: | Component (R/G/B, Y/R-Y/B-Y)<br>Loop-through D sub 15-pin |
| Audio1/2/3: | L/R RCA jack |

**Output connector**

| | |
|---|---|
| Video out: Composite: | BNC |
| S Video: | MINI DIN 4-pin |
| Component (R/G/B, Y/R-Y/B-Y): | D sub 15-pin |
| Audio: | L/R RCA jack |

**Signal level**

| | | |
|---|---|---|
| Composite: | 1Vp-p (typical), Automatic 75Ω termination | |
| S Video: | Y: Vp-p (typical), sync negative<br>C: 0.3Vp-p (PAL)/0.286Vp-p (NTSC) (typical)<br>Automatic 75Ω termination | |
| Component: | R/G/B input: | 0.714Vp-p (typical)(sync on G/external sync, switchable), 75Ω/Hi-Z<br>HV.sync/c.sync: 1-5Vp-p |
| | R/G/B output: | 0.714Vp-p (typical) (with external sync), 75Ω (typical)<br>HV.sync/c.sync: TTL |
| | Y/R-Y/B-Y input: | 0.7Vp-p (typical) (PAL/NTSC, sync on Y), 75Ω/Hi-Z |
| | Y/R-Y/B-Y output: | 0.7Vp-p (typical) (with sync on Y), 75Ω (typical) |

**Format conversion**

| | |
|---|---|
| Capture range: | fH: 15.6 to 70kHz, fV: 50 to 120Hz |
| Sampling rate: | 14.3 to 40MHz offset phase max.<br>(Equivalent to 80MHz sampling) |
| Output pixel clock: | 14.3 to 50MHz |
| Line doubler: | Line doubled vertically for each field |
| Genlock | Reference: Black/burst signal on VIDEO1 input<br>Applicable to NTSC/PAL outputs only<br>Genlock ON/OFF, SCH adjustment |
| Picture adjustment: | CONTRAST/PHASE (except for RGB/YBR/PAL)/<br>CHROMA (except for RGB)<br>SIZE/CENTER/ZOOM (×2, ×3, ×4)/APERTURE (ON/OFF)/STILL (ON/OFF) |

**Regulation compliance**

| | |
|---|---|
| Europe: | GS mark (IEC-950, TÜV)<br>CE mark (EN-60950/EN-5082/EN55022 class B) |
| Nordic: | DEMKO/SEMKO/NEMKO/EI safety approvals |

# SECTION 7 STILL IMAGE PRODUCTS

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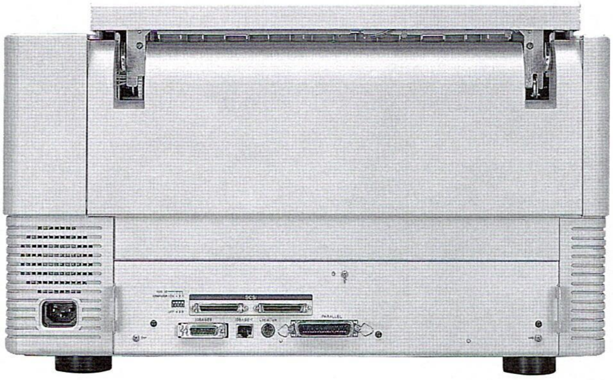
## UP-D9500

### Digital colour printer

•Selectable Printing methods: dye sublimation printing and variable dot printing •300 × 300dpi or 300 × 600dpi[*1] (Dye sublimation only) resolution •Stable colour reproduction combining paper chucking technology and automatic ribbon lot compensation •Large print area of 458 × 323mm (18⅛ × 12¾ inches) and paper size of 523 × 330mm (20⅝ × 13 inches) for A3 and tabloid proofing[*2] •Flexible colour matching to achieve a precise simulation of a target press •Compatibility with Macintosh OS and Windows 95/NT OS •Quick data transfer supporting[*3] EtherTalk, 10Base5 and 10Base-T •Incorporates Adobe® PostScript® Level 2 Interpreter •Large capacity HDD for spool printing and font downloads •Supporting DCS format file



| | |
|---|---|
| Supplied software: | (For Macintosh OS and Windows 95/NT OS)<br>PS printer driver, PPD file and PDF file for QuarkXpress™<br>Photoshop® plug-in module<br>Network/colour matching utility and IT8.7/3 colour patch digital data<br>ICC profile (×2)<br>On-line manual in Adobe Acrobat®'s PDF format |
| Supplied accessories: | Ink ribbon holder<br>Paper tray (1)<br>AC power cable<br>Operation manual |
| Optional support: | 100Base-Tx interface[*3] |
| Optional accessories: | A3++ size dye sublimation print paper (60 sheets × 3 packs) UPP-9510<br>A3++ size dye sublimation colour ink Ribbon (180 prints) UPR-9510<br>A4++ size dye sublimation print paper (60 sheets × 4 packs) UPP-9511[*4]<br>A4++ size dye sublimation colour ink Ribbon (240 prints) UPR-9511[*4]<br>A3++ size variable dot print paper (60 sheets × 3 packs) UPP-9550<br>A3++ size variable dot colour ink ribbon (180 prints) UPR-9550<br>A4++ size variable dot print paper (60 sheets × 4 packs) UPP-9551[*4]<br>A4++ size variable dot colour ink ribbon (240 prints) UPR-9551[*4]<br>Ink ribbon holder UPA-9500<br>Add-on memory kit (32MB) UPK-9500 |

### Specifications

| | |
|---|---|
| Printing Method: | Dye sublimation printing<br>Variable dot thermal printing |
| Resolution: | 300 × 300dpi, 300 × 600dpi[*1] (Dye sublimation only) |
| Gradation: | 256 gradations for Yellow, Magenta, Cyan and Black |
| Printing paper size: | A3++: 523 × 330 mm (20⅝ × 13 inches)<br>A4++[*2]: 330 × 307 mm (13 × 12⅛ inches) |
| Printed picture size: | A3++: Max. 458 × 323 mm (18⅛ × 12¾ inches)<br>A4++[*2]: Max. 323 × 242 mm (12¾ × 9⅝ inches) |
| Picture elements: | Max. 5408 × 3810dots (300 × 300dpi mode),<br>10816 × 3810dots (300 × 600dpi mode) |
| Picture memory: | 32MB[*1] |
| Printing time: | A3++: Approx. 240 seconds<br>A4++[*2]: Approx. 160 seconds |
| Interface port[*3]: | LocalTalk, Parallel, 10Base-T, 10Base5, SCSI |
| Power requirements: | 220 to 240V, 50/60Hz |
| Power consumption: | 2.0A |
| Dimensions: | 510(W) × 310(H) × 642(D) mm<br>(20⅛ × 12¼ × 25⅜ inches) |
| Mass: | 40 kg (88 lb 3 oz) |
| Safety regulations: | EN60950 |

[*1] In the 300 x 600dpi mode of the dye sublimation printing, the UP-D9500 needs 64MB picture memory. Using the optional add-on memory kit UPK-9500, the UP-D9500 will be expandable up to 128MB of picture memory.

[*2] A4++ print paper for A4 and letter size proof will soon be available.

[*3] 100Base-Tx interface will be available in the near future. (Contact your Sony sales representative for details.)

[*4] Will soon be available.

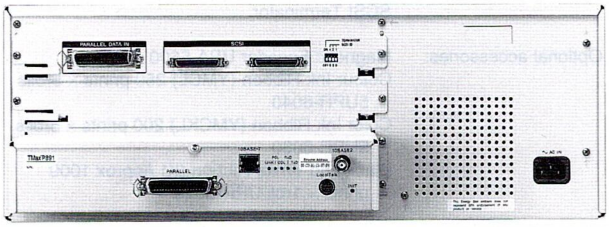
## UP-D8800

### Digital colour printer

•State-of-the-art quality and high speed digital colour printing with 300dpi •256 gradations and over 16 million colour reproduction per pixel •A4 size print (210 × 297mm/$8\frac{3}{8}$ × $11\frac{3}{4}$ inches) in approx. 85 seconds (Approx. 55 seconds in the 150 dpi print mode) •Provides superb bit-map printing through a SCSI and Centronics interface facility with the optional UPK-8802RT SCSI and Centronics interface board •Provides PostScript® printing through multiple interface facilities with the optional P891 Colour Connectivity Controller •Full-bleed A4 size (215.9 × 297mm/$8\frac{1}{2}$ × $11\frac{3}{4}$ inches) image printing •A wide range of optional accessories including printer driver software, add-on memory, for easy system expansion

SONY
Digital Color Printer
DIGITAL COLOR PRINTER UP-D8800

| | |
|---|---|
| Supplied accessories: | Ink Ribbon Holder<br>Paper Tray<br>Paper Cover<br>AC Power Cable<br>Operation Manual |
| Optional accessories: | Raster interface kit UPK-8802RT<br>Add-on memory kit UPK-8801<br>NeWSprint printer driver for SUN Sparc WS UPS-8801N<br>Printer driver software UPS-8802S<br>Colour connectivity controller P891*<br>A4 size colour print pack UPC-8810<br>A4 size B&W print pack UPC-8820<br>A4 size OHP transparencey print pack UPC-8830<br>A4 Size Seif-laminating colour print pack UPC-8840<br>Full-bleed A4 size colour print pack UPC-8817 |



UP-D8800 with UPK-8802RT and P891

### Specifications

| | | |
|---|---|---|
| Printing Method: | | Dye transfer sublimation thermal |
| Resolution: | | 300dpi or 150dpi selectable |
| Gradations: | | 256 levels each for YMC<br>(16.7 million colours per dot) |
| Effective Print Pixels: | A4 Size: | 300dpi; 2,400 × 3,208 dots<br>150dpi; 1,200 × 1,604 dots |
| | A4 Plus Size: | 300dpi; 2,550 × 3,508 dots<br>150dpi; 1,275 × 1,754 dots |
| Print Area: | A4 Size: | 203.2 × 271.6 mm<br>(8 × $10\frac{3}{4}$ inches) |
| | A4 Plus Size: | 215.9 × 297 mm<br>($8\frac{1}{2}$ × $11\frac{7}{8}$ inches) |
| Paper Area: | A4 Size: | 210 × 297 mm<br>($8\frac{3}{8}$ × $11\frac{3}{4}$ inches) |
| | A4 Plus Size: | 222 × 322.4 mm<br>($8\frac{7}{8}$ × $12\frac{3}{4}$ inches) |
| Print Area: | | Max. 215.9 × 297mm ($8\frac{1}{2}$ × $11\frac{7}{8}$ inches) |
| Paper Size: | | 210 × 297mm ($8\frac{3}{8}$ × $11\frac{3}{4}$ inches) - using the optional UPC-8810<br>222 × 322.4mm ($8\frac{7}{8}$ × $12\frac{3}{4}$ inches) - using the optional Full-bleed A4 size paper |
| Picture Memory: | | Up to 30MB (with the optional UPK-8802RT and the UPK-8801)<br>32MB (with the optional P891) |
| Printing Time: | A4 Size: | 300dpi; 85 s<br>150dpi; 55 s |
| | Laminating: | 300dpi; 115 s<br>150dpi; 85 s |
| | OHP: | 300dpi; 130 s<br>150dpi; 60 s |
| | A4 Plus Size: | 300dpi; 90 s<br>150dpi; 60 s |
| Paper Tray Capacity: | | 100 sheets |
| Interface: | | SCSI and Centronics (with the optional UPK-8802RT)<br>Centronics, TCP/IP, NetWare and EtherTalk (with the optional P891) |
| Input Data Format: | | RGB<br>RGB (with UPK-8802RT)<br>PostScript (with P891) |
| Power Requirements: | | AC220 to 240V, 50/60Hz |
| Power Consumption: | | Max. 260W<br>Less than 30W (Stand-by mode, with the optional UPK-8802RT and the UPK-8801) |
| Dimensions: | | 493.8(W) × 189(H) × 468.8(D)mm<br>($19\frac{1}{2}$ × $7\frac{1}{2}$ × $18\frac{1}{2}$ inches) |
| Mass: | | Approx. 18kg (39 lb 10 oz) |
| Safety Standards: | | EN60950 |

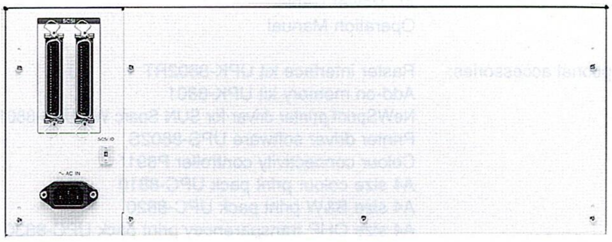
*The P891 is not available in some areas. For further details, please consult your nearest Sony office.

# UP-D6600

## Digital Colour Printer

•Superb quality digital colour printer for ID card production •In-line magnetic encoding capability with the optional UPA-6600 Magnetic Encoder •High resolution of 300dpi and over 16 million colour reproduction for clear image and text printing •256/128 gradation mode selectable •High speed thermal lamination process - 70s in 256 gradation mode/40s in 128 gradation mode •SCSI interface for direct connection to a versatile PCs •Use of ISO 7810 PVC card •Holds up to 100 cards in supplied card magazine •Semi-transparent front panel to check unit operation •An LED display for indicating operating status and error such as jamming

UP-D6600 (right) with UPA-6600 (left)



| | |
|---|---|
| Supplied accessories: | AC Power Cable<br>Operation Manual<br>Card Magazine (for 100 cards)<br>Card Tray (for 100 printed cards)<br>Cleaning Roller<br>Ink Ribbon Holder<br>SCSI Terminator |
| Optional accessories: | Magnetic Encoder UPA-6600<br>Colour Ink Ribbon (YMCL) 250 prints × 5rolls 5UPR-6040<br>Color Ink Ribbon (YMCKL) 200 prints × 5rolls 5UPR-6080<br>Black and White Ribbon (K) Approx 1000 prints × 1roll UPR-6025 |

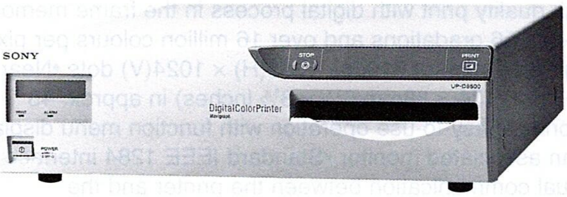
## Specifications

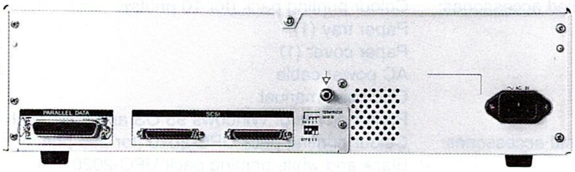
| | |
|---|---|
| Printing Method: | Dye transfer sublimation thermal |
| Resolution: | 300dpi |
| Gradations: | 128 levels - Normal Mode<br>256 levels - High Quality Mode |
| Effective Print Pixels: | 590 × 965 dots (2mm border from edge) |
| Card Size: | ISO-7810 ID-1<br>53.98 × 85.73mm (2$^{1}/_{8}$ × 3$^{3}/_{8}$ inches) |
| Card Thickness: | 27 to 34mil (0.6858 to 0.8636mm) |
| Card Holder Capacity: | 100 cards |
| Ribbon: | Yellow, Magenta, Cyan and Laminate, for max. 250 images |
| Printing Time: | Approx. 40 s - Normal mode<br>Approx. 70 s - High Quality print mode |
| Interface: | SCSI |
| Card Supply: | Detachable Cards Magazine (100 cards) |
| Card Stack: | Free Fall Card Tray (100 cards) |
| Power Requirements: | AC220 to 240V, 50/60Hz |
| Power Consumption: | Approx. 100W |
| Dimensions: | 502(W) × 200(H) × 344(D)mm (without including the supplied card holder)<br>(19$^{7}/_{8}$ × 7$^{7}/_{8}$ × 13$^{5}/_{8}$ inches) |
| Mass: | Approx. 17.1kg (37 lb 2 oz) |
| Safety Standards: | EN60950 |
| EMC Regulations: | EN50081-1 (1992) EN50082-1 (1992) |

## UP-D5500

### Digital colour printer

•Dye transfer sublimation thermal printing for near photographic prints with over 16 million colour reproduction •A high resolution of 300dpi provided by a high resolution thermal head with 2048 elements •A5 size color prints provided in a mere 40 seconds •SCSI and IEEE-1284 (supporting the ECP mode) interfaces for direct connection to computers with its high data transfer speed •Mutual communication between the printer and connected equipment capability via the SCSI and IEEE-1284 interfaces •Compatible with Windows and Macintosh computers •Compact and convenient operating design





| | |
|---|---|
| Supplied accessories: | Ink ribbon holder<br>Paper tray<br>Paper cover<br>AC power cable<br>Operational manual<br>Colour print pack (for 20 prints)<br>Printer driver disk for Windows 95 and Macintosh computers |
| Optional accessories: | Colour printing pack (ink ribbon holder not included) UP-5510<br>Colour printing pack (ink ribbon holder not included) 5UP-5510<br>Colour printing pack UPC-5510C*<br>Additional ink ribbon holder UPA-5500 |

### Specifications

**Printing Performance**

| | |
|---|---|
| Printing Method: | Dye transfer sublimation thermal printing |
| Thermal Head: | 2048 dots (300dpi) |
| Gradation: | 256 level each for Yellow, Magenta and Cyan (16.7 million colors per dot) |
| Effective Print Pixels: | 1,536 × 2,408 dots |
| Print Area: | 132.1 × 176.1mm (5 1/4 × 7 inches) |
| Printing Time: | Approx. 40 sec. |
| Picture Memory: | 2048 × 2048 × 8 bit per R/G/B |
| Interface Port: | SCSI<br>IEEE-1284 |

**General**

| | |
|---|---|
| Paper Tray Capacity: | 100 sheets |
| Power Requirements: | AC 100 to 240V, 50/60Hz |
| Power Consumption: | Max. 250W |
| Dimensions: | 424(W) × 125(H) × 475(D)mm (excluding projecting parts) (16¾ × 5 × 18¾ inches) |
| Mass: | 17kg (37 lb 11 oz) |
| Safety Standards | EN60950, EN60601-1 |

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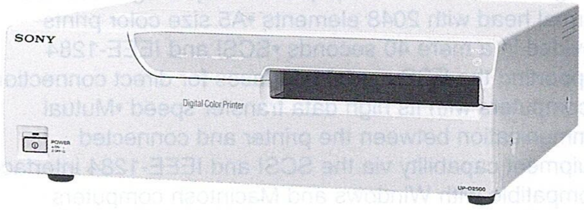
*The UPC-5510C is not available in some areas. For further details, please consult your nearest Sony office.

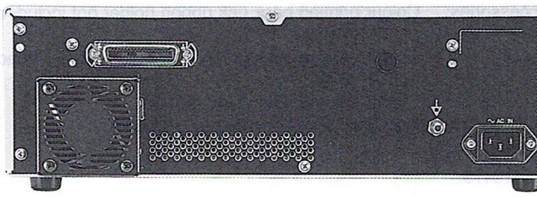
## UP-D2500

### Digital colour printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 310dpi, 1365(H) × 1024(V) dots •Near A6 size print (130 × 88mm/5⅛ × 3½ inches) in approx. 45 seconds •Easy-to-use operation with function menu display on an associated monitor •Standard IEEE 1284 interface for mutual communication between the printer and the connected equipment •200 Sheets paper feed capacity •Compatibility with Windows 95 and Macintosh OS



| | |
|---|---|
| Supplied accessories: | Colour printing pack (for 10 prints)<br>Paper tray (1)<br>Paper cover (1)<br>AC power cable<br>Operation manual<br>Printer driver for Windows 95 OS and Macintosh OS |
| Optional accessories: | Colour printing pack UPC-2010 (for 200 prints)<br>Black and white printing pack UPC-2020 (for 200 prints)<br>Self-laminating colour printing pack UPC-2040A (for 120 prints)<br>Colour postcard printing pack UPC-2070E (for 150 prints)<br>16-split Self-adhesive pre-cut colour printing pack UPC-20S16 (for 200 prints)<br>4-split Self-adhesive pre-cut colour printing pack UPC-20S04 (for 200 prints)<br>Paper ejector UPA-2001<br>Paper tray (for UPC-2040A and UPC-2070E) UPA-2002<br>Interface cable (for Macintosh) UPZ-2000M |



### Specifications

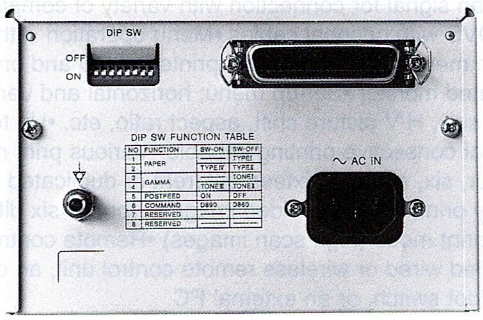
| | |
|---|---|
| Printing method: | Dye transfer sublimation printing |
| Resolution: | 310dpi or 155dpi selectable |
| Gradation: | 256 gradations for Yellow, Magenta, Cyan<br>Over 16.7 million colours per dot |
| Printing paper size: | 130 × 88 mm (5⅛ × 3½ inches)<br>(Self-laminating paper/Postcard: 148 × 100 mm) |
| Printed picture size: | Max. 112 × 84 mm (4½ × 3⅜ inches) |
| Picture elements: | 1365 × 1024 dots |
| Picture memory: | 2MB |
| Printing time: | Approx. 45 seconds<br>(When using the UPC-2040A: Approx. 75 seconds) |
| Interface port: | IEEE standard 1284-1994<br>(Compatible, Compatible Nibble and ECP modes) |
| Paper tray capacity: | 200 sheets |
| Power requirements: | 220 to 240V, 50/60Hz |
| Power consumption: | Approx. 1.0A |
| Dimensions: | 370(W) × 125(H) × 417(D) mm<br>(14⅝ × 5 × 16½ inches) |
| Mass: | 9.5 kg (23 lb 2 oz) |
| Safety regulations: | EN60950, EN60601-1 (TÜV) |

# UP-D890

## Digital graphic printer

•Monochrome digital graphic printer with 1024 picture element (horizontally) and 256 steps of gradation •A fast printing speed: approx 5.5 seconds •Compact (154 × 106 × 303mm/6¹/₈ × 4¹/₄ × 12 inches) and lightweight (3.6kg/7 lb 16 oz) •Conforms to the bi-Centronics standard for direct connection to equipment such as a computer and electronic microscope and mutual communication between the printer and connected equipment •Panoramic-size printing capable with an additional 4MB memory •Printing paper selectable from UPP-110HA superior density type UPP-110HD high density type or the UPP-110S normal type thermal paper •Three gradations selectable; Soft, Standard and Hard (when using the UPP-110HA or UPP-110HD high density thermal paper)

SONY
ON/OFF
RECEIVING
PAPER EMPTY
FEED
OPEN/CLOSE
DIGITAL GRAPHIC PRINTER UP-D890



DIP SW FUNCTION TABLE

| NO | FUNCTION | SW-ON | SW-OFF |
|---|---|---|---|
| 1 | PAPER | — | TYPE I |
| 2 |  | TYPE IV | TYPE II |
| 3 | GAMMA | — | TONE I |
| 4 |  | TONE III | TONE II |
| 5 | POSTFEED | ON | OFF |
| 6 | COMMAND | D890 | D860 |
| 7 | RESERVED | — | — |
| 8 | RESERVED | — | — |

| | |
|---|---|
| Supplied accessories: | AC power cable<br>Paper roll UPP-110HA<br>Head cleaning sheet<br>Printer Driver for Windows 3.1/95<br>Operation manual |
| Optional accessories: | Printing paper UPP-110S<br>High density printing paper UPP-110HD<br>Superior Density Printer Paper UP-110HA |

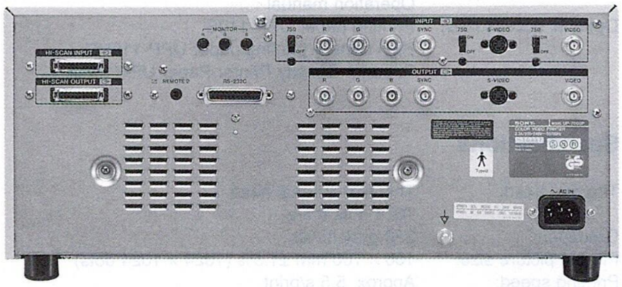
### Specifications

| | |
|---|---|
| Thermal head: | Thin film thermal head<br>1024 dots drive |
| Gradation: | 256 gray levels |
| Printed picture size: | 100 × 100 mm ±1.5% (1024 × 1024 dots) |
| Printing speed: | Approx. 5.5 s/print |
| Picture elements: | 1024(H) × 1024(V) dots |
| Interface connector: | bi-Centronics standard<br>(IEEE STD P1284 Reverse-Nibble and ECP)<br>36-pin Amphenol type |
| Power requirements: | AC 100 to 120V/220 to 240V, 50/60Hz |
| Power consumption: | Max. 1.6A |
| Dimensions: | 154(W) × 106(H) × 303(D) mm<br>(6¹/₈ × 4¹/₄ × 12 inches) |
| Mass: | 3.6 kg (8 lb) |
| Safety regulations: | EN60950, EN60601-1 |

## UP-7300MDP

### Colour video printer

•High quality full colour print with digital process in the frame memory in 8-bit/256 gradations, and over 16 million colours per pixel •Its thermal head, with 1280 picture element dots, reproduces a high quality output with a resolution of 6.4 dots/mm •A4 size print (210 × 297mm/ $8^{3}/_{8} \times 11^{3}/_{4}$ inches) in approx. 125 seconds and a black and white image in approx. 60 seconds •OHP transparency prints for effective presentations •Multiscan capability; inputs over a wide range of horizontal scanning frequencies- 15kHz to 89kHz- is acceptable •Multiple inputs; four BNC connectors for 625 analogue RGB signal input, DIN 4-pin for Y/C input and a BNC connector for PAL composite signal input, and DN 50-pin multiple connector for analogue RGB high scan signal for connection with variety of computers and HDVS with optional cables •Menu operation with the function menu displayed on the printer's LCD and on an associated monitor •Set-up menu; horizontal and vertical picture size, H/V picture shift, aspect ratio, etc. •Up to 20 copies of consective printing capable •Various print modes; two, four, six, eight or sixteen different or duplicated image memory prints (625 line video images), four or six different image print mode (high scan images) •Remote control from a supplied wired or wireless remote control unit, an optional FS-20 foot switch, or an extemal PC



| | |
|---|---|
| Supplied accessories: | Remote control unit (wired/wireless)<br>Cable for remote control unit (5m)<br>Ink ribbon holders for colour, B&W and OHP materials<br>Paper tray<br>Paper cover<br>Battery SUM-3 (×2)<br>AC power cable<br>Operation and instruction manual |
| Optional Accessories | Colour print pack UPC-7010P (for 100 prints)<br>Black and white print pack UPC-7020 (for 100 prints)<br>OHP print pack UPC-7030 (for 100 prints)<br>Foot switch FS-20<br>RS-232C cross cable SMF-1015<br>Video interface cable for Macintosh UPZ-7000M<br>Video interface cable for IBM PS55, PS/2, PS/V UPZ-7000I<br>Interface cable for workstation UPZ-7001, UPZ-7002, UPZ-7003 |

### Specifications

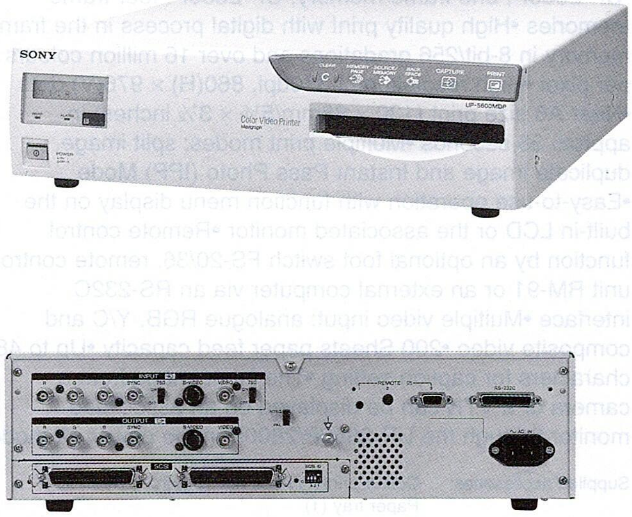
| | |
|---|---|
| Printing method: | Dye transfer sublimation thermal printing |
| Thermal head: | 1280 elements (6.4 dots/mm) |
| Printing paper size: | A4 (210 × 297 mm$8^{3}/_{8} \times 11^{3}/_{4}$ inches) using the optional UPC-7010P |
| Picture size: | <625/50 line signal><br>Max. 184 × 241mm ($7^{1}/_{4} \times 9\ ^{1}/_{2}$ inches)<br><Hi-scan signal><br>Max. 190 × 246mm ($7^{1}/_{2} \times 9^{3}/_{4}$ inches) |
| Gradations: | 256 levels process (Yellow, Magenta, Cyan) over 16 million colours per pixel |
| Scanning frequency: | 15kHz to 89kHz |
| Picture memory: | Six frame memories (9MB) |
| Printing time: | Approx. 125 seconds - Colour, Macintosh II print<br>Approx. 60 seconds - B & W print |
| Input: | RGB analogue for Hi-Scan or HDVS signal*(DN 50-pin)<br>RGB: 0.7Vp-p, 75Ω<br>Sync: 1.0 to 5.0Vp-p, 75Ω<br>RGB analogue (625 line system) signal* (BNC ×4)<br>RGB: 0.7Vp-p, 75Ω, unbalanced<br>Sync: 0.3 to 4.0Vp-p, negative, 75Ω, unbalanced<br>S-Video (Y/C separate, DIN 4-pin S terminal)<br>Y: 0.5 to 2.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>Composite video (BNC)<br>CCIR/PAL 0.5 to 2.0Vp-p, sync negative, 75Ω, unbalanced |
| Output: | RGB analogue for Hi-Scan or HDVS signal (DN 50-pin)*<br>RGB: 0.7Vp-p, 75Ω<br>Sync: Through output<br>RGB analogue signal (625 line scan) (BNC ×4)<br>RGB: 0.7Vp-p, 75Ω, unbalanced<br>Sync: 1.0Vp-p, negative, 75Ω, unbalanced<br>S-Video (Y/C separate, DIN 4-pin S terminal)<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>Composite video (BNC)<br>CCIR/PAL 1.0Vp-p, sync negative, 75Ω, unbalanced |
| Control terminal: | RS-232C (D-sub 25-pin)<br>REMOTE 1: Remote control jack (special mini)<br>REMOTE 2: Foot switch jack (stereo mini) |
| Power requirement: | AC 200 to 240V, 50/60Hz |
| Power consumption: | 290W |
| Dimensions: | 424(W) × 177(H) × 490(D)mm<br>($16^{3}/_{4} \times 7 \times 19^{3}/_{8}$ inches) |
| Mass: | Approx. 19.2kg (42 lb) |
| Safety regulations: | EN60950, EN6060-1, BZT |

* Note: The UP-7300MDP can accept sync-on-G or external sync automatically.

## UP-5600MDP

### Colour video printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •A thermal head with 2048 elements assures high quality output with a resolution of 300 dots per inch •Four frame memories (Eight frame memory is possible with optional UPK-5500 frame memory board) •A5 size print (210 × 148mm/8⅜ × 5⅞ inches) in approx. 34 seconds •Easy-to-use menu operation with function menu display on the printer's LCD and on an associated monitor •Worldwide use (accepts CCIR/PAL video, EIA/NTSC video, 625 analogue RGB, 525 analogue RGB) •Multiple video inputs; analogue RGB, Y/C and composite video •Remote control operation from optional wired/wireless remote control units RM-5500/91 and foot switch FS-20/30 •RS-232C port for external remote control from a PC •Full colour digital printing is possible using the optional four frame memory board UPK-5500 and SCSI interface board UPK- 5502SC which includes A/D and D/A conversion function and printer driver software •Multiple printing modes; 2,4,8 or 16 split print, 2,4,8 or 16 duplicate image print, composite print •Up to 80 characters of caption setting •The input image from a camera or a VTR can be displayed on an assosiated monitor looping through the UP-5600MDP in the power off mode •User-friendly operational design



UP-5600MDP with UPK-5502SC

| | |
|---|---|
| Supplied accessories: | AC power cable<br>Colour print pack (for 20 prints)<br>Paper tray<br>Paper cover<br>Ink ribbon holder<br>Operation manual |
| Optional accessories: | Four frame memory board UPK-5500<br>Digital interface board UPK-5502SC<br>Wired/Wireless remote commander RM-5500<br>Remote control unit RM-91<br>Foot switch FS-30<br>Foot switch FS-20<br>Colour printing pack UPC-5510/5UPC-5510*<br>Colour printing pack UPC-5510C<br>Cassette for UPC-5510/5UPC-5510 UPA-5500<br>OHP transparency printing pack UPC-5530 |

*The UPC-5510/5UPC-5510 is not supplied with a cassette.

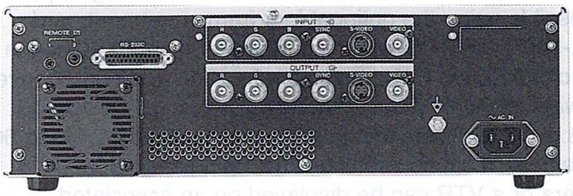
### Specifications

| | |
|---|---|
| Printing method: | Dye transfer sublimation thermal printing |
| Thermal head: | 6.72 dots/mm (300dpi dots) |
| Printing paper size: | 148 × 210mm (5⅞ × 8⅜ inches) |
| Picture size: | 124.8 × 165.1mm (5 × 6½ inches) - PAL Full Print Mode<br>125.8 × 165.1mm (5 × 6½ inches) - NTSC Full Print Mode<br>132.1 × 176.1mm (5¼ × 7 inches) - Digital Printing (with optional UPK-5502SC) |
| Picture elements: | 1176 lines × 1920 dots - PAL Full Print Mode<br>976 lines × 1920 dots - NTSC Full Print Mode<br>1536 lines × 2048 dots - Digital Printing (with optional UPK-5502SC and UPK-5500) |
| Gradations: | 256 levels process (Yellow, Magenta, Cyan)<br>Over 16 million colours per pixel |
| Picture memory: | 4 frame memories, 2048 × 1024 × 8 bits × 3 (6MB)<br>8 frame memories with optional UPK-5500, 2048 × 2048 × 8 bits × 3 (12MB) |
| Printing time: | Approx. 34s - PAL Full Size Print Mode<br>Approx. 30s - NTSC Full Size Print Mode<br>Approx. 38s - Digital printing with optional UPK-5502SC |
| Input: | 625 or 525 RGB analogue* (BNC × 4, R/G/B/Sync)<br>RGB: 0.7Vp-p, 75Ω, unbalanced<br>Sync: 0.3 to 4.0Vp-p, sync negative, 75Ω, unbalanced<br>S-Video (Y/C Separate, 4-pin S terminal)<br>CCIR/PAL<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>EIA/NTSC<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.286Vp-p, 75Ω, unbalanced<br>Composite video (BNC)<br>CCIR/PAL or EIA/NTSC 1.0Vp-p, sync negative, 75Ω, unbalanced** |
| Output: | 625 or 525 RGB analogue* (BNC × 4, R/G/B/Sync )<br>RGB: 0.7Vp-p, 75Ω, unbalanced<br>Sync: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>S-Video (Y/C Separate, 4-pin S terminal)<br>CCIR/PAL<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>EIA/NTSC<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.286Vp-p, 75Ω, unbalanced<br>Composite video (BNC)<br>CCIR/PAL or EIA/NTSC 1.0Vp-p, sync negative, 75Ω, unbalanced** |
| Interface: | (with optional UPK-5502SC)<br>SCSI 1 channel<br>50-pin amphenol (×2) |
| Control terminal: | Remote control jack (Special mini) for optional RM-5500<br>Foot switch-1 (stereo mini) for optional FS-20<br>Foot switch-2 (D-sub 9-pin) for optional FS-30<br>RS-232C interface port (D-sub 25-pin) |
| Power requirement: | AC220V to 240V, 50/60Hz |
| Power consumption: | Max. 1.2A |
| Dimensions: | 424(W) × 125(H) × 475(D)mm<br>(16¾ × 5 × 18¾ inches) |
| Mass: | 14kg (30 lb 14oz) |
| Safety regulations: | EN60601-1 (TÜV) |
| EMI regulations: | EMC Directive |
| Note: | *The UP-5600MDP can accept sync-on-G or external sync automatically.<br>** CCIR/PAL or EIA/NTSC signals are selected using the input selector on the unit's rear panel. |

## UP-2850P/2800P

### Colour video printer

•UP-2800P: one frame memory, UP-2850P: four frame memories •High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 310dpi, 860(H) × 976(V) dots •Near A6 size print (130 × 88mm/5⅛ × 3½ inches) in approx. 35 seconds •Multiple print modes: split image, duplicate image and Instant Pass Photo (IPP) Mode •Easy-to-use operation with function menu display on the built-in LCD or the associated monitor •Remote control function by an optional foot switch FS-20/36, remote control unit RM-91 or an external computer via an RS-232C interface •Multiple video input: analogue RGB, Y/C and composite video •200 Sheets paper feed capacity •Up to 48 characters for caption setting •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-2850P/2800P in the power off mode



| | |
|---|---|
| Supplied accessories: | Colour printing pack (for 10 prints)<br>Paper tray (1)<br>Paper cover (1)<br>AC power cable<br>Operation manual |
| Optional accessories: | Wired/wireless remote control Unit RM-5500<br>Remote control unit RM-91<br>Foot switch FS-20/FS-36<br>Colour printing pack UPC-2010 (for 200 prints)<br>Black and white printing pack UPC-2020 (for 200 prints)<br>Self-laminating colour printing pack UPC-2040A (for 120 prints)<br>Colour postcard printing pack UPC-2070E (for 150 prints)<br>16-split self-adhesive pre-cut colour printing pack UPC-20S16 (for 200 prints)<br>4-split Self-adhesive pre-cut colour printing Pack UPC-20S04 (for 200 prints)<br>Paper ejector UPA-2001<br>Paper tray (for UPC-2040A and UPC-2070E) UPA-2002 |

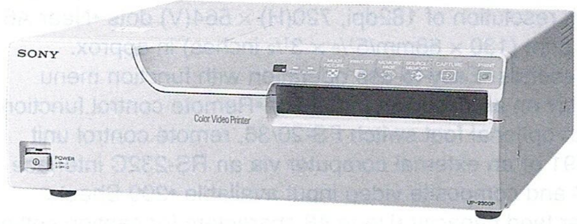
### Specifications

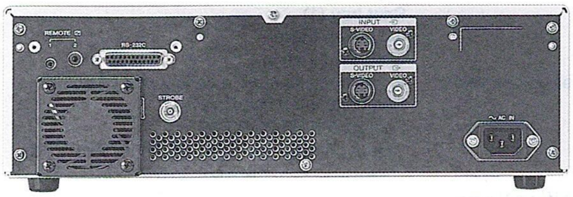
| | |
|---|---|
| Printing method: | Dye transfer sublimation printing |
| Thermal head: | 1024 elements (12.2 dots/mm) |
| Gradation: | 256 gradations for yellow, Magenta, Cyan Over 16.7 million colours per dot |
| Printing paper size: | 130 × 88 mm (5⅛ × 3½ inches) |
| Printed picture size: | Max. 110 × 80 mm (4⅜ × 3¼ inches)<br>(Self-laminating paper: Max. 135 × 70 mm (5⅜ × 2⅞ inches)) |
| Picture elements: | 860 × 976 dots |
| Picture memory: | UP-2850P: Four frame memories<br>UP-2800P: One frame memory |
| Printing time: | Approx. 35 seconds |
| Inputs: | Y/C separate (4-pin S terminal)<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced<br>Analogue RGB (BNC × 4)<br>RGB: 0.7Vp-p, 75Ω, unbalanced<br>Sync: 0.2 to 4.0Vp-p, negative, 75Ω, unbalanced |
| Outputs: | Y/C separate (4-pin S terminal)<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced<br>Analogue RGB (BNC × 4)<br>RGB: 0.7Vp-p, 75Ω, unbalanced<br>Sync: 1.0Vp-p, negative, 75Ω unbalanced |
| Control terminals: | RS-232C (D-sub 25-pin)<br>Remote 1 (Special mini) for optional remote control unit RM-5500<br>Remote 2 (Stereo mini) for optional remote control unit RM-91 or foot switch FS-20/36 |
| Power requirements: | 220 to 240V, 50/60Hz |
| Power consumption: | Max. 1.0A |
| Dimensions: | 370(W) × 125(H) × 417(D) mm<br>(14⅝ × 5 × 16½ inches) |
| Mass: | 10.5 kg (23 lb 2 oz) |
| Safety regulations: | EN60950, EN60601-1 (TÜV) |

## UP-2300P

### Colour video printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 310dpi, 860(H) × 976(V) dots•Near A6 size print (130 × 88mm/$5^1/_8$ × $3^1/_2$ inches) in approx. 35 seconds •Multiple print modes: split image, duplicate image and Instant Pass Photo (IPP) Mode •Easy-to-use operation with function menu display on an associated monitor •Remote control function by an optional foot switch FS-20/36, remote control unit RM-91 or an external computer via an RS-232C interface •Y/C and composite video input available •200 Sheets paper feed capacity •Up to 48 characters for caption setting •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-2300P in the power off mode





| | |
|---|---|
| Supplied accessories: | Colour printing pack (for 10 prints)<br>Paper tray (1)<br>Paper cover (1)<br>AC power cable<br>Operation manual |
| Optional accessories: | Wired/wireless remote control Unit RM-5500<br>Remote control unit RM-91<br>Foot switch FS-20/FS-36<br>Colour printing pack UPC-2010 (for 200 prints)<br>Black and white printing pack UPC-2020 (for 200 prints)<br>Self-laminating colour printing pack UPC-2040A (for 120 prints)<br>Colour postcard printing pack UPC-2070E (for 150 prints)<br>16-split self-adhesive pre-cut colour printing pack UPC-20S16 (for 200 prints)<br>4-split Self-adhesive pre-cut colour printing Pack UPC-20S04 (for 200 prints)<br>Paper ejector UPA-2001<br>Paper tray (for UPC-2040A and UPC-2070E) UPA-2002 |

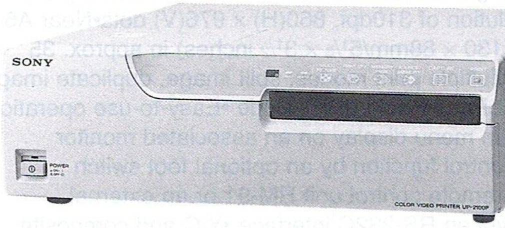
### Specifications

| | |
|---|---|
| Printing method: | Dye transfer sublimation printing |
| Thermal head: | 1024 elements (12.2 dots/mm) |
| Gradation: | 256 gradations for yellow, Magenta, Cyan Over 16.7 million colours per dot |
| Printing paper size: | 130 × 88 mm ($5^1/_8$ × $3^1/_2$ inches) |
| Printed picture size: | Max. 110 × 80 mm ($4^3/_8$ × $3^1/_4$ inches)<br>(Self-laminating paper: Max. 135 × 70 mm ($5^3/_8$ × $2^7/_8$ inches)) |
| Picture elements: | 860 × 976 dots |
| Picture memory: | One frame memory |
| Printing time: | Approx. 35 seconds |
| Inputs: | Y/C separate (4-pin S terminal)<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced |
| Outputs: | Y/C separate (4-pin S terminal)<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced |
| Control terminals: | RS-232C (D-sub 25-pin)<br>Remote 1 (Special mini)<br>for optional remote control unit RM-5500<br>Remote 2 (Stereo mini)<br>for optional remote control unit RM-91 or foot switch FS-20/36 |
| Power requirements: | 220 to 240V, 50/60Hz |
| Power consumption: | Max. 1.0A |
| Dimensions: | 370(W) × 125(H) × 417(D) mm<br>($14^5/_8$ × 5 × $16^1/_2$ inches) |
| Mass: | 10 kg (22 lb 1 oz) |
| Safety regulations: | EN60950, EN60601-1 (TÜV) |

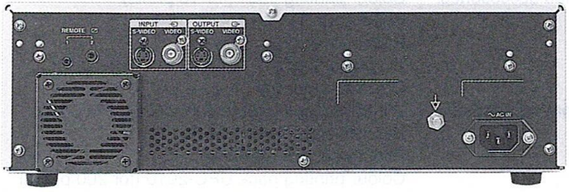
## UP-2100P

### Colour video printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 182dpi, 720(H) × 564(V) dots •Near A6 size print (130 × 88mm/$5^1/_8$ × $3^1/_2$ inches) in approx. 35 seconds •Easy-to-use operation with function menu display on an associated monitor •Remote control function by an optional foot switch FS-20/36, remote control unit RM-91 or an external computer via an RS-232C interface •Y/C and composite video input available •200 Sheets paper feed capacity •Up to 48 characters for caption setting •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-2100P in the power off mode



| | |
|---|---|
| Supplied accessories: | Colour printing pack (For 10 Prints)<br>Paper tray (1)<br>Print tray (1)<br>AC power cable<br>Operation manual |
| Optional accessories: | Wired/wireless remote control unit RM-5500<br>Remote control unit RM-91<br>Foot switch FS-20/FS-36<br>Colour printing pack UPC-2010 (for 200 prints) |



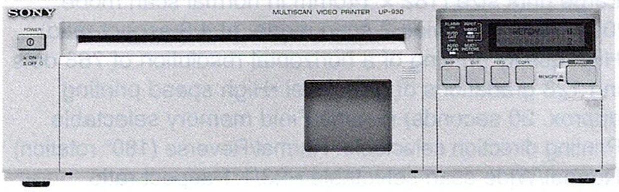
### Specifications

| | |
|---|---|
| Printing method: | Dye transfer sublimation printing |
| Thermal head: | 608 elements (7.2 dots/mm) |
| Gradation: | 256 gradations for yellow, Magenta, Cyan<br>Over 16.7 million colours per dot |
| Printing paper size: | 130 × 88 mm ($5^1/_8$ × $3^1/_2$ inches) |
| Printed picture size: | Max. 110 × 80 mm ($4^3/_8$ × $3^1/_4$ inches) |
| Picture elements: | 720 × 564dots |
| Picture memory: | One frame memory |
| Printing time: | Approx. 60 seconds |
| Inputs: | Y/C separate (4-pin S terminal)<br>Y: 1.0Vp-p, sync negative, 75Ω, unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced |
| Outputs: | Y/C separate (4-pin S terminal)<br>Y: 1.0Vp-p, sync negative, 75Ω unbalanced<br>C: 0.3Vp-p, 75Ω, unbalanced<br>Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced |
| Control terminals: | Remote 1 (Special mini)<br>for optional remote control unit RM-5500<br>Remote 2 (Stereo mini)<br>for optional remote control unit RM-91 or foot switch FS-20/36 |
| Power requirements: | 220 to 240V, 50/60Hz |
| Power consumption: | Max. 1.0A |
| Dimensions: | 370(W) × 125(H) × 417(D) mm<br>($14^5/_8$ × 5 × $16^1/_2$ inches) |
| Mass: | 9 kg (19 lb 13 oz) |
| Safety regulations: | EN60950, EN60601-1 (TÜV) |

## UP-930 (CCIR/EIA)

### Monochrome multiscan video printer

•Multiscan capability (max. scanning rate: approx. 50kHz) •Large print size (CCIR standard: 240 × 178mm at side direction print mode, 190 × 141mm at normal direction print mode) •Multiple print modes (up to four split pictures) •128 gradations of gray level by 7-bit digital processing •Two types of input video signals: Composite video (BNC) and RGB analogue or TTL (D-sub 15-pin) •Scan adjust function (Scanning size and aspect ratio) •Selectable printing direction (Normal/Reverse—180° rotation/Side—90° rotation) •Auto paper cut function •RS-232C interface for an external computer control •Medical safety regulation (IEC 950 approved)



RS-232C
REMOTE
AC IN

| | |
|---|---|
| Supplied accessories: | AC power cable<br>Printing paper UPP-216HD (1)<br>Paper shaft<br>Head cleaning sheet<br>BNC-BNC connecting cable (1.5 m)<br>Operation manual |
| Optional accessories: | RGB cable SMF-3005<br>Video interface cable for IBM PS/2 UPZ-930I<br>Video interface cable for Apple Macintosh UPZ-930M<br>Foot switch FS-20<br>Remote control unit RM-91<br>High density printing paper UPP-216HD<br>Normal density printing paper UPP-216SE |

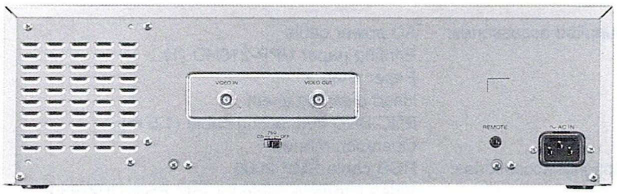
### Specifications

| | |
|---|---|
| Printing method: | Direct thermal printing |
| Thermal head: | Thin-film thermal head, 1280-dot drive (× 2) |
| Picture size:<br>(at aspect ratio 4:3) | Normal direction:<br>190 × 141mm ($7^{1}/_{2}$ × $5^{5}/_{8}$ inches) (EIA)<br>190 × 141mm ($7^{1}/_{2}$ × $5^{5}/_{8}$ inches) (CCIR)<br>Side direction:<br>200 × 149mm ($7^{7}/_{8}$ × $5^{7}/_{8}$ inches) (EIA)<br>240 × 178mm ($9^{1}/_{2}$ × $7^{1}/_{8}$ inches) (CCIR) |
| Picture elements: | 1216 dots × 478 lines (EIA)<br>1216 dots × 570 lines (CCIR) |
| Gradations: | 128 (black and white) |
| Picture memory: | 2Mbytes |
| Printing time: | Approx. 20 s/screen (EIA)<br>Approx. 23 s/screen (CCIR) |
| Input terminal: | Video In (BNC)<br>Composite video signals 1.0Vp-p, 75Ω/high-impedance<br>RGB In (D-sub 15-pin)<br>Composite sync/Separate sync/Sync on G, 0.7Vp-p (analogue)/5Vp-p (TTL), 75Ω/high-impedance |
| Output terminal: | Video Out (BNC): Loop-through<br>RGB Out (D-sub 15-pin): Loop-through |
| Remote terminal: | REMOTE (for the optional foot switch FS-20 or remote control unit RM-91): stereo mini jack<br>RS-232C: D-sub 25-pin |
| Sampling frequency: | Max. 40MHz |
| Scanning rate: | Approx. 15 to 50kHz |
| Power requirements: | AC 200 to 240V, 50/60Hz |
| Power consumption: | Max. 1.8A |
| Dimensions: | 424(W) × 130(H) × 380(D)mm<br>($16^{3}/4$ × $5^{1}/_{8}$ × 15 inches) |
| Mass: | Approx. 10.5kg (23 lb) |
| Safty reguration: | EN60950, EN60601-1 |

## UP-910 (CCIR/EIA)

### Monochrome video graphic printer

•Large print size (182 × 140mm in normal scan mode, 200 × 150mm in wide 2 scan mode, at 4:3 aspect ratio) •High quality printing of a horizontal resolution of 768 dots and 128 gradations of gray level •High speed printing (approx. 20 seconds) •Frame/Field memory selectable •Printing direction selectable: Normal/Reverse (180° rotation) •Normal/Wide scan selectable •4:3/1:1 aspect ratio selectable •EIA/CCIR automatic selection •Multiple copy function by pressing the "COPY" button •Safety regulations (IEC-950, IEC-601-1 approved)



| | |
|---|---|
| Supplied accessories: | AC power cable<br>Paper roll UP-216HD (1)<br>Paper shaft<br>Head cleaning sheet<br>BNC-BNC connecting cable (1.5m)<br>Operation manual |
| Optional accessories: | Foot switch FS-20<br>Remote control unit RM-91<br>High density printing paper UPP-216HD<br>Normal density printing paper UPP-216SE |

### Specifications

| | |
|---|---|
| Printing method: | Direct thermal printing |
| Thermal head: | Thin film thermal head (with built-in drive IC)<br>768-dot drive |
| Print size: | EIA/CCIR<br>(at aspect ratio 4:3)<br>Normal scan mode: 182 × 140mm ($7^{1}/_{4}$ × $5^{5}/_{8}$ inches)<br>Wide 1 scan mode: 192 × 146mm ($7^{5}/_{8}$ × $5^{3}/_{4}$ inches)<br>Wide 2 scan mode: 200 × 150mm ($7^{7}/_{8}$ × 6 inches)<br>(at aspect ratio 1:1)<br>Normal scan mode: 182m × 182mm ($7^{1}/_{4}$ × $7^{1}/_{4}$ inches)<br>Wide 1 scan mode: 192 × 192mm ($7^{5}/_{8}$ × $7^{5}/_{8}$ inches)<br>Wide 2 scan mode: 200 × 200mm ($7^{7}/_{8}$ × $7^{7}/_{8}$ inches) |
| Effective pixels | (CCIR)<br>Normal scan mode: 700 dots × 560 lines<br>Wide 1 scan mode: 736 dots × 582 lines<br>Wide 2 scan mode: 768 dots × 608 lines<br>(EIA)<br>Normal scan mode: 700 dots × 472 lines<br>Wide 1 scan mode: 736 dots × 490 lines<br>Wide 2 scan mode: 768 dots × 508 lines |
| Gradations: | 128 (black and white) |
| Picture memory: | One frame memory (3.36Mbits) |
| Printing time: | Approx. 20 seconds/screen (at aspect ratio 4:3) |
| Input terminal: | VIDEO IN (BNC)<br>CCIR/PAL or EIA/NTSC composite: 1.0Vp-p, 75Ω/high-impedance (switchable) |
| Output terminal: | VIDEO OUT (BNC) Loop-through |
| Remote terminal: | REMOTE (for the optional foot switch FS-20 or remote control unit RM-91): Stereo mini jack |
| Power requirements: | AC 200 to 240V, 50/60Hz |
| Power consumption: | Max. 1.3A, 190W |
| Dimensions: | 424(W) × 130(H) × 380(D)mm<br>($16^{3}/_{4}$ × $5^{1}/_{8}$ × 15 inches) |
| Mass: | Approx. 9.1kg (20 lb 1 oz) |
| Safty reguration: | EN60950, EN60601-1 |

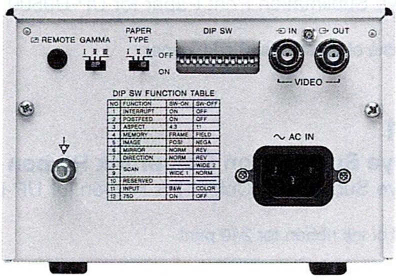
## **UP-890CE** (CCIR/EIA)

### Monochrome video graphic printer

•Thermal video graphic printer with quasi 256 steps of gray level •Small size and light weight •A fast printing speed of approx. four seconds •Automatic selection of CCIR/EIA video signal •High resolution printing of 1024 × 608dots (in Wide 2 scan mode) •Multiple print modes (Standard, Side, Normal/Small/Large/×1.5 Enlargement zoom)/ ×2 Enlargement(zoom) •Wide scanning function (Normal/ Wide 1/Wide 2 selectable) •4:3/1:1 aspect ratio selectable •Multiple copy function •Maximum 270 prints from one paper roll in POSTFEED OFF mode (230 prints in POSTFEED ON mode) •Frame/Field memory selectable •Positive/negative printing •Normal/reverse direction printing

SONY
STD
SIDE
THRU
EE
NORMAL
SMALL
LARGE
ZOOM 1.5×
ZOOM 2×
CONTR
BRIGHT
COPY
PRINT
PAPER EMPTY
OPEN/CLOSE
VIDEO GRAPHIC PRINTER UP-890CE

| | |
|---|---|
| Supplied accessories: | AC power cable<br>BNC cable (1.5m)<br>Printing paper roll (UPP-110HA)<br>Head cleaning sheet<br>Operation manual |
| Optional accessories: | High quality printing paper (Type I) UP-110S<br>High density printing paper (Type II) UPP-110HD<br>Superior density printing paper (Type II) UPP-110HA<br>Foot switch FS-20<br>Remote control unit RM-91 |



### Specifications

| | |
|---|---|
| Thermal head: | Thin-film thermal head of 1024-dot drive |
| Gradations: | 256 gray levels (quasi) |
| Printed picture size:<br>(at aspect ratio 4:3) | (CCIR)<br>NORMAL: 90.4 × 68.2mm ($3\frac{5}{8} \times 2\frac{3}{4}$ inches)<br>WIDE1: 95.1 × 70.9mm ($3\frac{3}{4} \times 2\frac{7}{8}$ inches)<br>WIDE2: 100.4 × 74.0mm (4 × 3 inches)<br>(EIA)<br>NORMAL: 90.4 × 69.0mm ($3\frac{5}{8}$ $2\frac{3}{4}$ inches)<br>WIDE1: 95.1 × 71.6mm ($3\frac{3}{4} \times 2\frac{7}{8}$ inches)<br>WIDE2: 100.4 × 74.2mm (4 × 3 inches) |
| Effective pixels: | (CCIR)<br>NORMAL: 922 dots × 560 lines<br>WIDE1: 970 dots × 582 lines<br>WIDE2: 1024 dots × 608 lines<br>(EIA)<br>NORMAL: 922 dots × 472 lines<br>WIDE1: 970 dots × 490 lines<br>WIDE2: 1024 dots × 508 lines |
| Printing speed: | Approx. four seconds/screen - Standard Print Mode<br>Approx. seven seconds/screen - Side Print Mode |
| Picture memory: | 1024 × 768 × 6 bits |
| Input/Output: | Video IN: BNC,<br>CCIR or EIA composite video signal,<br>1.0Vp-p, 75Ω/high impedance selectable<br>Video OUT: BNC,<br>Loop through or E to E selectable |
| Remote: | Remote: Stereo mini jack, for the optional foot switch FS-20 or remote control unit RM-91 |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | Max. 110W |
| Dimensions: | Approx. 154(W) × 106(H) × 303D)mm<br>($6\frac{1}{8} \times 4\frac{1}{4} \times 12$ inches) |
| Mass: | 3.5kg (7 lb 11 oz) |
| Safty reguration: | EN60950, EN60601-1 |

## UPP-9510

### A3++ size Dye Sublimation Print Paper

- A3++ size Dye Sublimation Print Paper for UP-D9500

Contents: 3 packs of 60 sheets of print paper

## UPR-9510

### A3++ size Dye Sublimation Colour Ink Ribbon

- A3++ size Dye Sublimation Colour Ink Ribbon for UP-D9500

Contents: 1 roll of ink ribbon for 180 print

## UPP-9511

### A4++ size Dye Sublimation Print Paper

- A4++ size Dye Sublimation Print Paper for UP-D9500

Contents: 4 packs of 60 sheets of print paper

## UPR-9511

### A4++ size Dye Sublimation Colour Ink Ribbon

- A4++ size Dye Sublimation Colour Ink Ribbon for UP-D9500

Contents: 1 roll of ink ribbon for 240 print

## UPP-9550

### A3++ size Variable Dot Print Paper

- A3++ size Variable Dot Print Paper for UP-D9500

Contents: 3 packs of 60 sheets of print paper

## UPR-9550

### A3++ size Variable Dot Colour Ink Ribbon

- A3++ size Variable Dot Colour Ink Ribbon for UP-D9500

Contents: 1 roll of ink ribbon for 180 print

## UPP-9551

### A4++ size Variable Dot Print Paper

- A4++ size Variable Dot Print Paper for UP-D9500

Contents: 4 packs of 60 sheets of print paper

## UPR-9551

### A4++ size Variable Dot Colour Ink Ribbon

- A4++ size Variable Dot Colour Ink Ribbon for UP-D9500

Contents: 1 roll of ink ribbon for 240 print

## UPA-9500

**Ink Ribbon Holder**

- Ink ribbon holder for UPR-9510/9511/9550/9551

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## UPK-9500

**Add-on Memory Kit**

•Additional 32MB memory for the UP-D9500 •With this kit, the UP-D9500 will be expandable up to 128MB of picture memory.

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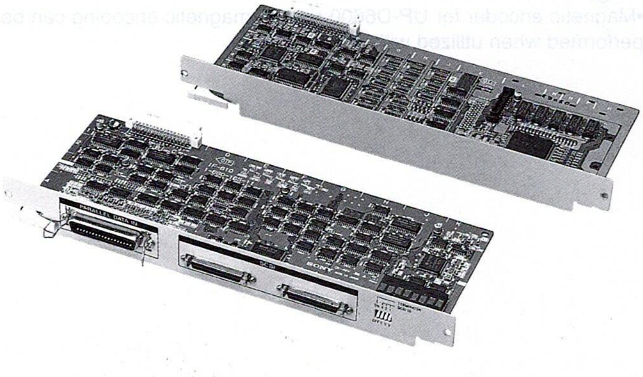
## UPK-8802RT

**Raster Interface kit**

•Provides bit-map printing capability on the UP-D8800 •Includes SCSI and Centronics interface facilities for direct connection between the UP-D8800 and a number of computers and networks •Includes printer driver software which covers the PhotoShop® plug-in module both for Apple® Macintosh® and Microsoft Windows™



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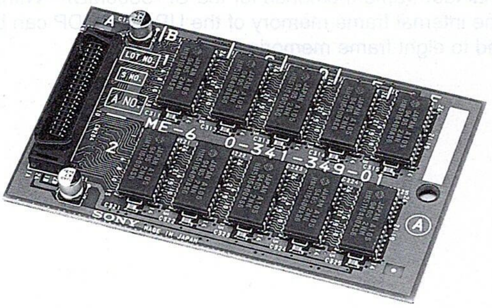
## UPK-8801

**Add-on Memory Kit**

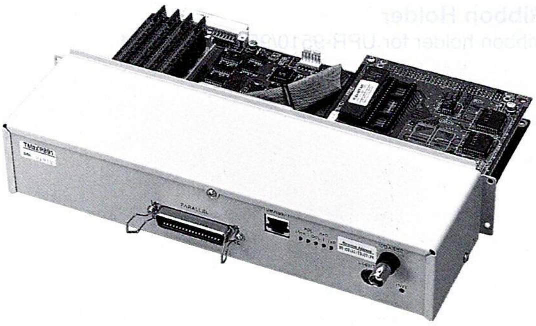
•20MB memory board for the UP-D8800 with the UPK-8802RT to configure a 30MB memory for three colour processing (RGB)



## P891*

### Colour Connectivity Controller

•PostScript printing option for the UP-D8800 •Provides PostScript printing compatible with the PostScript Level 2 interpreter
•Applicable the Adobe Type 1 and LaserWriter compatible 35 fonts
•Built-in hard disk for font down loading •Standard 32MB RAM for transferred data processing from the connected computer
•Uses the Intel i960CF processor •Multiple interface facility including NetWare, TCP/IP and EtherTalk for platform independence
•Spooling capability



Note: P891 is manufacturered by Topmax Corporation.
Note: P891 is not available in some areas.
For details, please consalt your nearest Sony office.

## UPS-8801N

### NeWSprint Printer Driver for SUN Sparc WS

•A printer driver software for the NeWSprint supplied by Sun Pics
•Supports line print (lp) system •Data format conforms to PostScript, TIFF, Sun Rastor and ASCII based text

## UPA-6600

### Magnetic Encoder

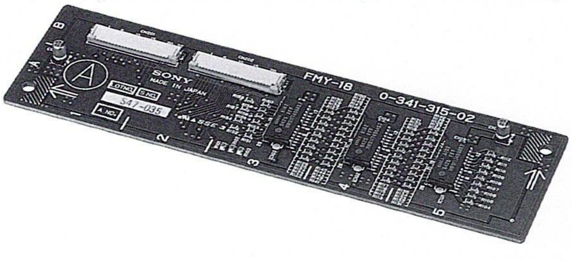
•Magnetic encoder for UP-D6600 •In-line magnetic encoding can be performed when utilized with the UP-D6600

SONY
MAGNETIC ENCODER UPA-6600

## UPK-5500

### Four Frame Memory Board

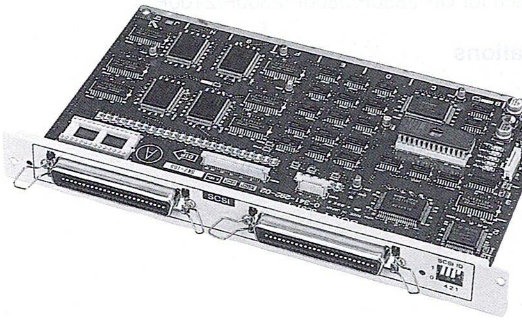
•Additional four frame memories for the UP-5600MDP •With this board, the internal frame memory of the UP-5600MDP can be expanded to eight frame memories



## UPK-5502SC

### Digital Interface Board

•SCSI interface kit for the UP-5600MDP •Provides A/D and D/A conversion function •Includes SCSI interface board and printer driver software which covers PhotoShop® plug-in modules both for Apple® Macintosh® and Microsoft Windows™ machines



## RM-5500

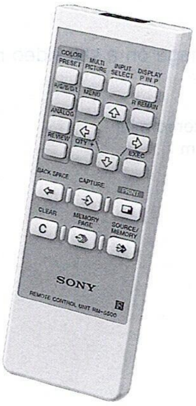
### Wired/Wireless Remote Commander

•Wired or wireless remote controls over multiple functions of the UP-5600MDP/2850P/2800P/2300P/2100P

Supplied accessory: Remote cable (5m)
Operation manual

### Specifications

Power requirement: DC 3V
Dimensions: 62(W) × 20(H) × 175(L)mm
(2$^{1}/_{2}$ × $^{27}/_{32}$ × 7 inches)
Mass: 100g (0.2 lb)


COLOR PRESET
MULTI PICTURE
INPUT SELECT
DISPLAY P IN P
MENU
ANALOG
REVIEW
EXEC
BACK SPACE
CAPTURE
PRINT
CLEAR
MEMORY PAGE
SOURCE/MEMORY
SONY
REMOTE CONTROL UNIT RM-5500

## RM-91

### Remote Control Unit

•To record or print an image on a still video recorder or a video printer

Connector: Stereo mini
Cable length: 5m

PRINT
RM-91
SONY

## FS-30

### Foot Switch

•Multiple function controls over the UP-5600MDP connected through the D-Sub 9-pin remote interface.

Supplied accessory: Operation manual

### Specifications

Terminal: D-sub 5-pin
Dimensions: 337.3(W) × 46.1(H) × 128.0(D)mm
(13$^{3}/_{8}$ × 1$^{7}/_{8}$ × 5$^{1}/_{8}$ inches)
Mass: 1.0kg (2 lb 3 oz)

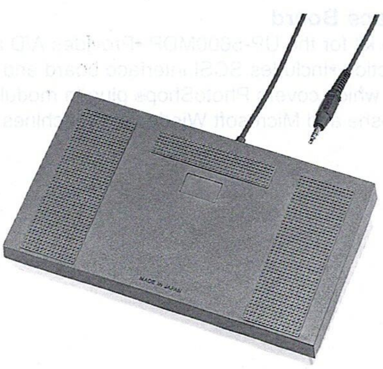
## FS-36

### Foot Switch

- Foot switch for UP-2850P/2800P/2300P/2100P

### Specifications

| | |
|---|---|
| Terminal: | Stereo mini |
| Cable length: | 5m |
| Dimensions: | 175(W) × 53(H) × 105(D) mm<br>(7 × $2^{1}/_{8}$ × $4^{1}/_{4}$ inches) |



## FS-20

### Foot Swich

•To record or print an image on a still video recorder or a video printer

| | |
|---|---|
| Connector: | Stereo mini |
| Cable length: | 5 m |

## UPC-8810

### A4-size Colour Printing Pack

•Colour print pack for the UP-D8800

| | |
|---|---|
| Contents: | A roll of YMC Ink Ribbon<br>100 sheets of Print Paper |

SONY
Colour Printing Pack
Ensemble pour impression couleur
UPC-8810

## UPC-8817

### A4 Plus size Colour Printing Pack

•Colour print pack for UP-D8800 •Prints an entire A4-size •Suitable for CG, Prepress and photo studios

| | |
|---|---|
| Contents: | 100 sheets of print paper<br>1 roll of ink ribbon |

## UPC-8820

### A4-size B&W Printing Pack

•Monochrome print pack for the UP-D8800

| | |
|---|---|
| Contents: | A roll of B&W Ink Ribbon<br>100 sheets of Print Paper |

---

## UPC-8830

### A4-size OHP Transparency Printing Pack

•OHP transparency print pack for the UP-D8800

| | |
|---|---|
| Contents: | A roll of YMC Ink Ribbon<br>100 Transparencies |

---

## UPC-8840

### A4-size Self-Laminating Colour Printing Pack

•Self-Laminating print pack for the UP-D8800

| | |
|---|---|
| Contents: | A roll of YMCL Ink Ribbon<br>70 Transparencies |

---

## UPC-7010

### A4-size Colour Printing Pack

•Colour print pack for UP-7300MDP

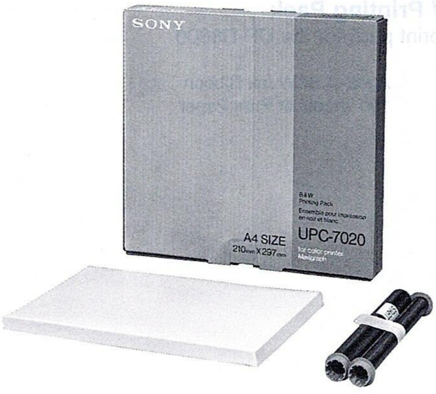
| | |
|---|---|
| Contents: | 100 sheets of print paper<br>1 roll of ink ribbon for 100 print |

## UPC-7020

### A4-size Black and White Printing Pack

•Monochrome print pack for UP-7300MDP

| | |
|---|---|
| Contents: | 100 sheets of print paper<br>1 roll of ink ribbon for 100 print |



## UPC-7030

### A4-size OHP Printing Pack

•Colour OHP transparency print pack for UP-7300MDP

| | |
|---|---|
| Contents: | 100 transparencies<br>1 roll of ink ribbon for 100 print |

SONY
A4 SIZE
210mm X 297mm
UPC-7030

## UPC-5510*

### A5-size Colour Printing Pack

•Colour print pack for the UP-D5500/5600MDP

| | |
|---|---|
| Contents: | 200 sheets of print paper<br>1 roll of ink ribbon |

*Ink ribbon holder not included.

## 5UPC-5510*

### A5-size Colour Printing Pack

•Colour print pack for UP-D5500/5600MDP

| | |
|---|---|
| Contents: | 5 packs of 200 sheets of print paper<br>5 rolls of ink ribbon |

*Ink ribbon holder not included.

SONY
UPC-5510

## UPC-5510C

### A5-size Colour Printing Pack

•Colour print pack for UP-D5500/5600MDP

| | |
|---|---|
| Contents: | 200 sheets of print paper<br>1 ink ribbon with disposable cartridge |

## UPA-5500

**Ink Ribbon Holder**

- Ink ribbon holder for UPC-5510 and 5UPC-5510

## UPC-5530

**A5-size OHP Transparency Pack**

- OHP transparency print pack for the UP-5600MDP

| | |
|---|---|
| Contents: | 100 transparencies<br>A roll of ink ribbon |

## UPA-2001

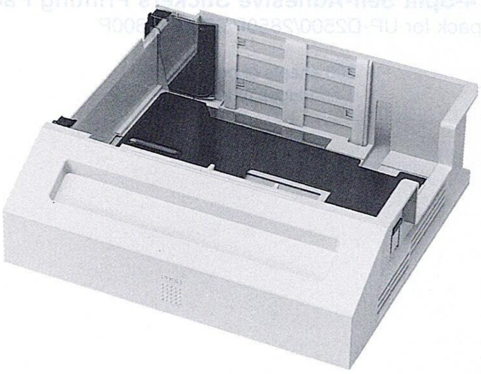
**Paper Ejector**

- Paper ejector for UP-D2500/2850P/2800P/2300P

## UPA-2002

**Paper Tray**

- Paper tray for UPC-2040A and UPC-2070E



## UPC-2010

### A6-size Colour Printing Pack

- Colour print pack for UP-D2500/2850P/2800P/2300P/2100P

| | |
|---|---|
| Contents: | 200 sheets of print paper<br>1 roll of ink ribbon |

SONY
200 prints
UPC-2010
for UP-2000 series
200 prints

---

## UPC-2020

### A6-size Black and White Printing Pack

- Monochrome print pack for UP-D2500/2850P/2800P/2300P

| | |
|---|---|
| Contents: | 200 sheets of print paper<br>1 roll of ink ribbon |

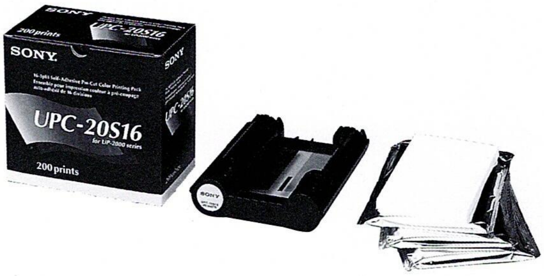
---

## UPC-20S16

### A6-size 16-Split Self-Adhesive Stickers Printing Pack

- Printing pack for UP-D2500/2850P/2800P/2300P

| | |
|---|---|
| Contents: | 200 sheets of print paper<br>1 cartridge of ink ribbon |


SONY
200 prints
UPC-20S16
for UP-2800 series
200 prints

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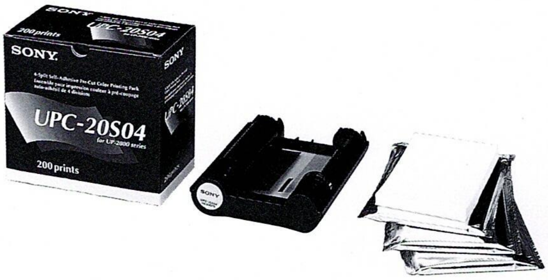
## UPC-20S04

### A6-size 4-Split Self-Adhesive Stickers Printing Pack

- Printing pack for UP-D2500/2850P/2800P/2300P

| | |
|---|---|
| Contents: | 200 sheets of print paper<br>1 cartridges of ink ribbon |


SONY
200 prints
UPC-20S04
for UP-2800 series
200 prints

## UPC-2040A

**A6-size Self-laminating Colour Printing Pack**

- Self-laminating colour print pack for UP-D2500/2850P/2800P/2300P

| | |
|---|---|
| Contents: | 120 sheets of print paper<br>1 cartridge of ink ribbon |

SONY
120 prints
UPC-2040A
for UP-2000 series
120 prints

## UPC-2070E

**A6-size Postcard Printing Pack**

- Postcard printing sheet for UP-D2500/2850P/2800P/2300P

| | |
|---|---|
| Contents: | 150 sheets of print paper<br>1 cartridge of ink ribbon |

SONY
150 prints
UPC-2070E
for UP-2000 series
150 prints

## UPP-216HD

**High Density Printing Paper**

- Type II high density thermal paper roll for UP-930/910

SONY
216mm×25m
TYPE II (High Density)
UPP-216HD
High Density Printing Paper
Sony Corporation Tokyo Japan
Made in Japan

## UPP-216SE

**Normal Density Printing Paper**

- Type II normal density thermal paper roll for UP-930/910

SONY
216mm×25m
TYPE II (Normal)
UPP-216SE
High Quality Printing Paper
Sony Corporation Tokyo Japan
Made in Japan

## UPP-110HA

**Superior Density Printing Paper**

- Type IV superior density thermal paper roll for the UP-890CE

SONY
TYPE IV (Enhanced)
UPP-110HA
Superior Density Printing Paper
Sony Corporation Tokyo Japan
Made in Japan

## UPP-110HD

**High Density Printing Paper**

- Type II high density thermal paper for UP-D890/890CE

SONY
TYPE II (High Density)
110mm x 20m
UPP-110HD
High Density Printing Paper
Sony Corporation Tokyo Japan

## UPP-110S

**Printing Paper**

- Type I normal density thermal paper roll for UP-D890/890CE

High Quality
Printing Paper
UPP-110S
SONY
High Quality
Printing Paper
UPP-110S

## 5UPR-6080

**Colour Ink Ribbon**

- Colour ink ribbon for UP-D6600 • Provides YMCKL colour print and thermal lamination

## 5UPR-6040

### Colour Ink Ribbon

- Colour ink ribbon for the UP-D6600
- Provides YMCL colour print and thermal lamination

## UPR-6025

### Black and White Ribbon

- Black and White ribbon for UP-D6600

## UPZ-2000M

### Interface cable

- Interface cable between UP-D2500 and Apple Macintosh series computers

| | |
|---|---|
| Connectors: | Mini DIN 8-pin df Amphenol 36-pin |
| Cable length: | 1.5 m |

## UPZ-7001

### Video Interface Cable

- Interface cable between UP-7300MDP and video equipment which outputs colour high scan signals

| | |
|---|---|
| Connectors: | DN50-20-pin ↔ BNC (×5) |
| Cable length: | 2 m |

## UPZ-7002

### Video Interface Cable

•Interface cable between UP-7300MDP and video equipment which outputs monochrome high scan signals

| | |
|---|---|
| Connectors: | DN50-20-pin ↔ BNC |
| Cable length: | 5 cm |

---

## UPZ-7003

### Hi-line terminator

•For 75Ω termination •Used when UP-7300MDP is used without monitoring display

---

## UPZ-7000M

### Video interface cable

•Interface cable between UP-7300MDP and Apple Macintosh series computers

| | |
|---|---|
| Connectors: | DN50-20-pin ↔ D-sub 15-pin |
| Cable length: | 1.5 m, 0.3 m |

---

## UPZ-7000I

### Video interface cable

•Interface cable between UP-7300MDP and IBM PS/2 computers

| | |
|---|---|
| Connectors: | DN50-20-pin ↔ D-sub 15-pin |
| Cable length: | 1.5 m, 0.3 m |

## UPZ-930M

### Video interface cable

- Interface cable between UP-930 and Apple Macintosh series computers

| | |
|---|---|
| Connectors: | D-sub 15-pin ↔ D-sub 15-pin |
| Cable length: | 2 m |

## UPZ-930I

### Video interface cable

- Interface cable between UP-930 and IBM PS/2 computers

| | |
|---|---|
| Connectors: | D-sub 15-pin ↔ D-sub 15-pin |
| Cable length: | 2m |

## SMF-3005

### RGB cable

- For connecting UP-930 to a video product equipped with RGB connectors

| | |
|---|---|
| Connectors: | D-sub 15-pin ↔ BNC (× 4) |
| Cable length: | 2m |

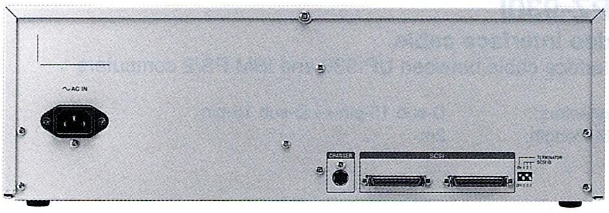
# UY-S77

## Film scanner

•High speed consecutive scanning in six minutes of 36 frame images*1 •High quality image at a maximum resolution of 2,200dpi (dots per inch), (2,048 × 3,072pixels) •Automatic colour compensation •Internal JPEG compression •Compatibility with various kinds of film - 135 type (35 mm) film of positive, negative, colour, monochrome, mounted positive and IX240 Advanced Photo System film*2 •Easy setup without troublesome film handling •Bundled with TWAIN driver software and scanning utility software for Windows® 95

SONY
UY-S77
DIGITAL FILM SCANNER

Supplied accessories: Halogen lamp (2)
Sleeve carrier, Slide carrier
AC power cable, Operation manual
TWAIN driver and utility software for Windows 95
Optional accessory: Film carrier*3
Spare part: Halogen lamp MPS-L60



### Specifications

Supported film: 135 type (35 mm) film, IX240 film*2 (positive, negative, colour, monochrome, mounted positve and consecutive roll)
Scanning method: One path scanning with three line RGB colour CCD
Light source: Halogen lamp
Scanning size: 135 type film, 23.5 × 35.3 mm ($^{15}/_{16} \times 1^{7}/_{16}$ inches)
IX240 type film*2, 15.6 × 27.9 mm ($^{5}/_{8} \times 1^{1}/_{8}$ inches)
Maximum resolution: Approx. 2,200dpi
Scanning pixels and scanning time*4:

| Film type | Scanning pixels | Scanning time (per frame) |
|---|---|---|
| 135: | 512 × 768pixels | Approx.3 seconds |
| | 1,024 × 1,536pixels | Approx.3 seconds |
| | 2,048 × 3,072pixels | Approx.9 seconds |
| IX240*2: | 512 × 912pixels | Approx.5 seconds |
| | 1,024 × 1,824pixels | Approx.5 seconds |

Prescanning time: Approx. 40 seconds (135 type film, 36 frame images)
Colour depth: Internal processing: 12bits per color
Output: 8bits per color
Interface: SCSI-2 (Half pitch, pin-type connector)
Bundled software: TWAIN driver and scanning utility software for Windows 95
System requirements:

| | |
|---|---|
| Platform: | PC/AT compatible |
| OS: | Windows 95 |
| SCSI host adapter: | Adaptec AHA-2940 series |
| Display: | SVGA (800 × 600 or larger) |
| Recommended CPU: | Pentium® processor |
| Recommended RAM: | 64MB or larger |

Power requirements: 220 to 240V, 50/60Hz
Power consumption: Approx. 0.65A max.
Dimension: 438(W) × 148(H) × 560(D) mm ($17^{1}/_{4} \times 5^{7}/_{8} \times 22^{1}/_{8}$ inches)
Mass: Approx. 12 kg (26lb 7oz)

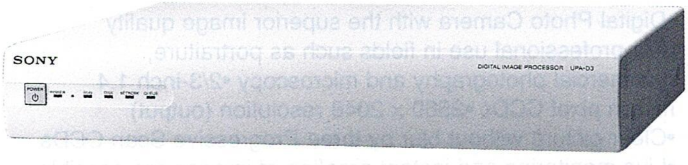
---

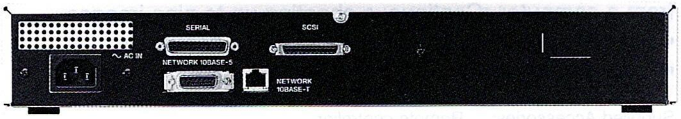
*1 When scanned with 1,100dpi (1,024 × 1,536pixels) resolution.
*2 Available when using the optional film carrier.*2
*3 The film carrier will soon be available.
*4 This scanning time does not include data transfer time.

## UPA-D3

### Digital print server

•Incorporates DICOM 3.0 compliant software to provide multi-modality connectivity between DICOM[1] compliant medical imaging equipment and selected Sony printers •Capability to daisy-chain up to six selected Sony printers •Utilizes industry standard TCP/IP protocols •Includes a sophisticated colour matching system for use with digital images from medical modalities such as Ultrasound, X-Ray, Nuclear, MRI and CT





### Specifications

•DICOM ver. 3.0 •CPU: R4700
•32MByte RAM •1GByte HDD

**Sony's DICOMpatible printers produce images through a completely dry process.**

The UP-D8800[2] Digital Colour Printer is capable of producing extremely high quality color or black and white images in both full-bleed A4 and regular A4 sizes. The printer features a fast print speed and a resolution of 300dpi.

The UP-D5500/5600MD[3] Digital Colour Printer is remarkable for its ability to produce extremely high resolution prints at 300 dpi, and its very fast print time. High quality A5 size prints can be made on paper and transparency media[4].

UP-D8800

UP-D5500

UP-D5600MDP

---

[1] DICOM (The Digital Imaging and Communication in Medicine) is standardized by ACR (The American College of Radiology) and NEMA (The National Electrical Manufactures Association).
[2] The optional UPK-8802RT Raster Interface Kit needs to be inserted in the UP-D8800.
[3] The optional UPK-5502SC Digital Interface Board and UPK-5500 Four-frame Memory Board need to be inserted in the UP-5600MDP.
[4] Transparency media can be utilized for UP-5600MDP.

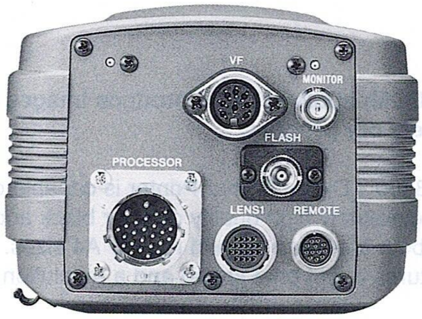
## DKC-ST5

### Digital Photo Camera

- Digital Photo Camera with the superior image quality
- For professional use in fields such as portraiture, commercial photography and microscopy
- 2/3-inch 1.4 million pixel CCDs
- 2560 × 2048 resolution (output)
- Clear picture without blur by three Progressive Scan CCDs
- Live monitoring and instant proofing of images are possible
- Overlay function provides the ability to preview the composition of an imge shot by DKC-ST5 and an image from a computer
- Continuous shooting up to nine images
- Quick transfer of images via SCSI port to computer
- Easy operation

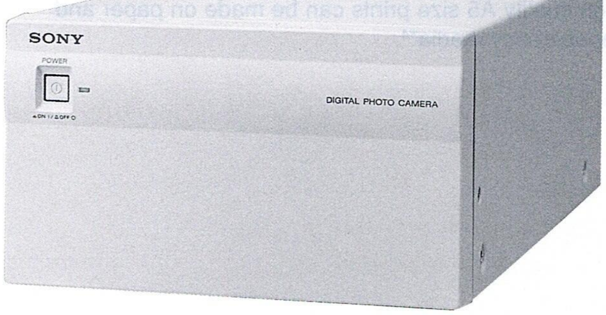
| | |
|---|---|
| Supplied Accessories: | Remote controller<br>AC power cord<br>Software (for Windows '95 and Macintosh)<br>Ferrite core |

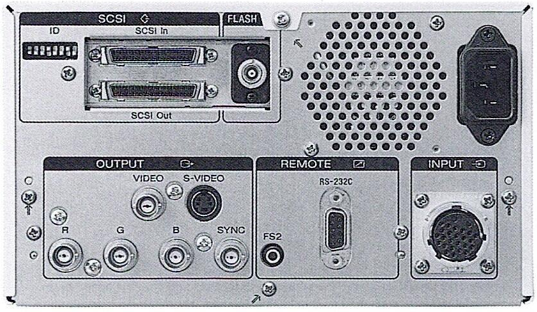
SONY
DIGITAL PHOTO CAMERA
LENS2


VF
MONITOR
FLASH
PROCESSOR
LENS1
REMOTE

### Specifications

| | | |
|---|---|---|
| Image device: | 2/3-inch progressive scan CCD | |
| Total pixel number: | Approx. 1,400,000 pixels | |
| Color separation: | 3-CCD prism system with diagonal spatial offset | |
| Lens mount: | 2/3-inch bayonet | |
| Output data size: | 2,560 × 2,048 | |
| Sensitivity: | ISO 20, 40, 80, 160 equivalent (selectable) | |
| Shutter speed: | 1/10,000 to 4 sec.<br>1/1,000 to 1/15 sec. (with flash sync.) | |
| Continuous shooting: | 2 frames/sec. (up to 9 frames) | |
| Buffer memories: | 9 frames | |
| Digital interface: | SCSI-2, RS-232C | |
| Monitor out: | Video, S-Video, R/G/B | |
| Dimensions | Camera head: | 120(W) × 90(H) × 202.2(D) mm<br>(4¾ × 3⅝ × 8 inches) |
| | Processor unit: | 211(W) × 365(H) × 128.5(D) mm<br>(8 ⅜ × 14⅜ × 5⅛ inches) |
| Mass: | Camera head: | 1.3 kg (2 lb 14 oz) |
| | Processor unit: | 6 kg (13 lb 4 oz) |

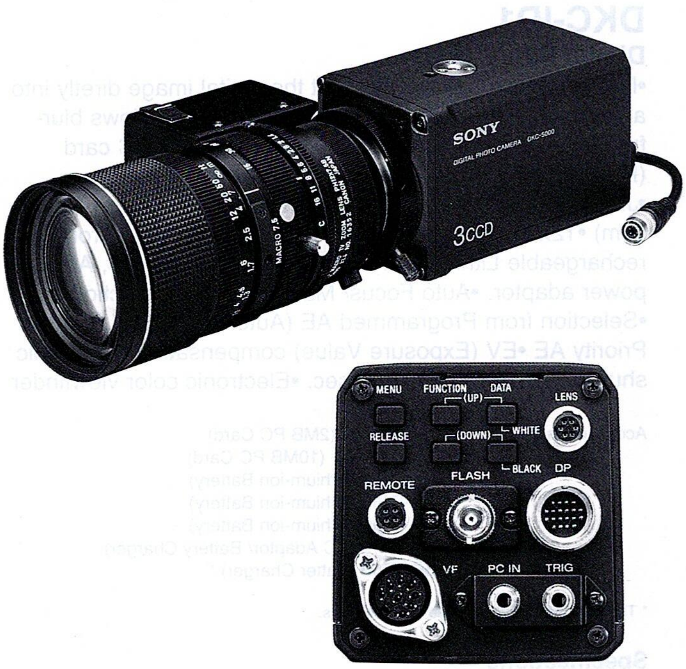

SONY
POWER
DIGITAL PHOTO CAMERA


ID
SCSI
SCSI In
SCSI Out
FLASH
OUTPUT
VIDEO
S-VIDEO
R
G
B
SYNC
REMOTE
RS-232C
FS2
INPUT

## DKC-5000

### Digital Photo Camera

•High resolution of 800 (h) x 800 (v) TV lines •1/2-inch three-CCD camera (470K pixels each) •Diagonal pixel offset •10-bit analog-to-digital conversion and Look Up Table (LUT) realizing delicate adjustments of color saturation and gamma characteristics •Strobe synchronization •Equipped with two-frame memory •Controllable from a computer via SCSI •1/2-inch 38mm bayonet mount



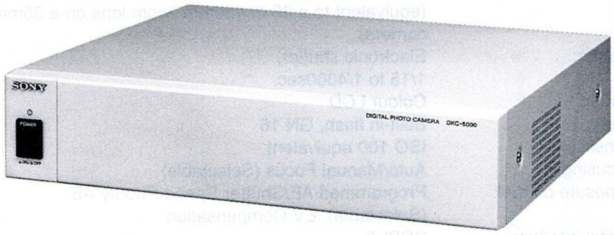
Supplied Units/Accessories:
Camera head
Digital processor
Camera cable (10m)
Release switch (RM-S72)
Software (Photoshop Plug-in)
SCSI cable
AC power cord

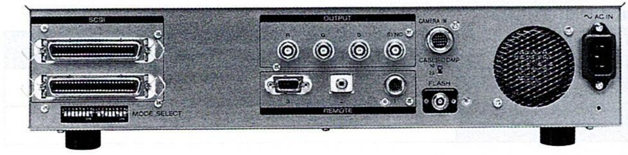
Optional Accessories:
DKB-5008 (Frame Memory board)
VCL-713BXS
VCT-S20
DXF-40BCE
DXF-41

### Specifications

**Camera Head**

Imager: 3-chip 1/2-inch Interline-transfer CCD
Effective picture elements: 440,000 pixels
Total picture elements: 470,000 pixels
Resolution: 800 (horizontal) x 800 (vertical) TV lines
Spatial pixel offset: Horizontal and vertical
Lens mount: 1/2-inch 38mm bayonet
Signal-to-noise ratio: More than 56dB (at ISO 100)
Sensitivity: ISO 100, 200, 400, 800
White balancing : Automatic (Flash ON/OFF)
Manual (Red gain and Blue gain adjustable individually)
Electric shutter: 4 to 1/10,000 sec.
Gamma: Switchable (on/off/User1/User2/User3)
Contrast: Adjustable from -127 to 127
Colour temperature pre-setting: 3200K/5600K
Input/output connector: Processor: 20-pin
Lens: 6-pin
EVF: DIN 8-pin
REMOTE: 4-pin, for RM-S72
FLASH: X-connector
PC IN: Stereo mini
TRIG: Stereo mini
Operating temperature: 5˚C to 35˚C
Dimension: 70(W) × 72(H) × 123.5(D) mm
Mass: (Approx.) 620 g





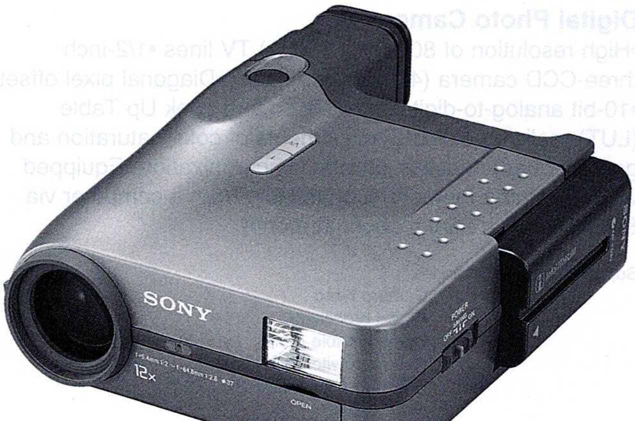
**Digital Processor**

Analog/Digital conversion: 10-bit
Final image data size: 1520 (h) × 1144 (v) × 3 channels (5.0Mbytes)
Memory: 2 planes
Analog output: R/G/BSync.: BNC × 4, 0.7 Vp-p, 75 ohms (625 lines/ 50Hz)
Digital interface: SCSI-2
Input/output connector: Camera: 20-pin
FLASH: X-connector
REMOTE1: 12-pin
REMOTE2: Mini
REMOTE3: D-sub 9-pin
SCSI: Amphenol 50-pin x 2
Power requirements: AC 220V to 240 V (50/60Hz)
Power consumption: 0.7A
Dimension: 423(W) × 105.5(H) × 356.5(D) mm
Mass: Approx. 9 kg

## DKC-ID1

### Digital Still Camera

•Powerful business tool to input the digital image diretly into a personal computer •Progressive Scan CCD allows blur-free still image capture •Simple recording with PC card (PCMCIA ATA Type II) which slots into the camera •JPEG Compression •Close-up photography (Macro setting 1cm) •12x Zoom Lens •Two-way powering - either from rechargeable Lithium-ion Batteries or the AC-V615, AC power adaptor. •Auto Focus/ Manual Focus (Selection) •Selection from Programmed AE (Auto Exposure)/ Shutter Priority AE •EV (Exposure Value) compensation •Electronic shutter from 1/15 to 1/4000 sec. •Electronic color viewfinder



| | |
|---|---|
| Accessories: | DKA-MC2F (2MB PC Card)<br>DKA-MC10F (10MB PC Card)<br>NP-F530 (Lithium-ion Battery)<br>NP-F730 (Lithium-ion Battery)<br>NP-F930 (Lithium-ion Battery)<br>AC-V615 (AC Adaptor/ Battery Charger)<br>BC-V500 (Batter Charger) * |

* The BC-V500 is not available in some areas.

### Specifications

| | |
|---|---|
| Imager: | 1/3-inch 450,000 pixel CCD |
| Imager type: | Progressive Scan Type |
| Lens: | 12× zoom (f = 5.4mm to 64.8mm) with macro (equivalent to a 38 to 459mm zoom lens on a 35mm camera) |
| Shutter: | Electronic shutter, 1/15 to 1/4000sec. |
| Finder: | Colour LCD |
| Flash: | Built-in flash, GN 16 |
| Sensitivity: | ISO 100 equivalent |
| Focusing: | Auto/Manual Focus (Selectable) |
| Exposure control: | Programmed AE/Shutter Speed Priority AE (Selectable), EV Compensation |
| Digital interface: | SCSI-2 |
| Recording medium: | Sony PC Card |
| Compression: | JPEG compliant |

**Number of images:**

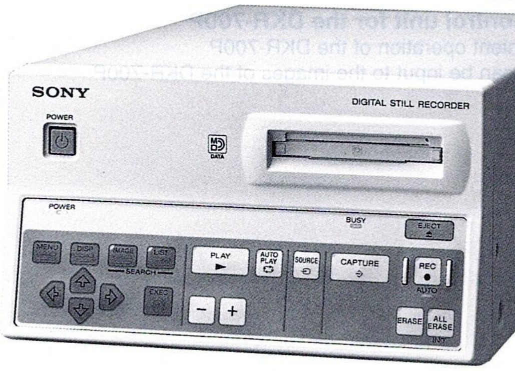
| | Fine Mode | Normal Mode |
|---|---|---|
| 2MB PC Card | 7 | 29 |
| 10MB PC Card | 42 | 158 |

| | |
|---|---|
| Dimensions: | 129mm (W) x 65.5mm (H) x 179mm (D) |
| Mass: | 650g |

## DKR-700P

### Digital Still Recorder

•Digital still image recorder for a wide range of applications •Recording medium: MD Data medium/Picture MD •500 TV lines digital recording •JPEG Compression •Selection is possible from five picture modes - Non Compression/Fine/ Normal/Quick1/Quick2 •Flash Synchronization •Image Information such as the title of the image, sent from RM-C700 or an external computer, can be recorded along with the images •Interval recording to be set from 5 sec. to 60 min. •Automatic playback •Multiple inputs/ outputs •List search function with RM-C700 •Image Search funtion •Rapid image retrieval •SCSI port equipped allowing image data to be transferred to a computer •RS-232C port allows sophisticated control from a computer •Foot switch operation is possible with FS-20 and FS-30



| | |
|---|---|
| Supplied Accessories: | Operational manual<br>Software (Photoshop Plug-in for Windows)<br>AC Power Cord |
| Optional accessories: | RM-C700 (Remote Control Unit)<br>RM-91 (Remote Control Unit)<br>FS-20 (Foot Control Unit)<br>FS-30 (Foot Control Unit)<br>MMD-140 (Rewritable MD DATA medium) |

### Specifications

| | |
|---|---|
| Recording Medium: | Mini Disc for DATA |
| File Format: | Picture MD |
| Data Compression Method: | JPEG Base Line; Fixed Data Length algorithm |
| Data Size/Sub Sampling: | MAIN 768 × 592 (Y:U:V 4:2:2)<br>SD(Quick play back) 640 x 480 (Y:U:V 4:2:0)<br>INDEX (Image search) 80 x 60 (Y:U:V 4:2:0) |
| Sampling Frequency: | 14.75MHz |
| Digital Interface: | SCSI RGB 4:4:4 pixel sequential |
| Digital I/O | SCSI-2 Half pitch pin conncetor |
| Horizontal resolution: | More than 500 TV lines |
| Video input: | Composite (BNC x 1)<br>Y/C (DIN 4-pin S type)<br>RGB (BNC × 3)<br>Sync (BNC × 1) |
| Video output: | Composite (BNC × 1)<br>Y/C (DIN 4-pin S type)<br>RGB (BNC × 3)<br>Sync (BNC × 1) |
| Image information: | Image Number (Auto increment)<br>Title 15 digits<br>ID Number 15 digits<br>year/month/date/hour/min./sec.<br>Comment 250 Bytes |
| Recording mode: | NON COMPRESSION/FIN/NORMAL/QUICK1/QUICK2 |
| Camera control mode: | CAMERA1 BNC (External Sync)<br>(for Long Time Exposure by DXC-930P/950P)<br>CAMERA 2 BNC (External Sync)<br>(for REC Control by DXC-950P) |
| External control: | RS-232C (D-sub 9-pin female) for computer control |
| Power requirement: | AC220/230/240V switchable, 50Hz |
| Power consumption: | 0.30 A max. |
| Mass: | Approx. 7.0kg |
| Safety approval: | EN60950, EN50081-1, EN50082-1, FCC Class A<br>(The DKR-700P meets all applicable provisions of the EN60601-1 safety standard.) |

## RM-C700

### Remote control unit for the DKR-700P

- For convenient operation of the DKR-700P
- File name can be input to the images of the DKR-700P

SONY
PLAY
AUTO PLAY
SOURCE
CAPTURE
RM-C700
REC
ERASE
ALL ERASE
INIT

## FS-30

### Foot Switch

- Multiple function controls over the UP-5600MDP connected through the D-sub 9-pin remote interface.

Supplied accessory: Operation manual

### Specifications

| | |
|---|---|
| Terminal: | Disub 5-pin |
| Dimensions: | 337.3(W) × 46.1(H) × 128.0(D) mm |

## MMD-140

### Rewritable MD DATA

- Large capacity (140MB)
- Compact size (Diameter 64mm, Width 1.2mm)

SONY
140MB
REWRITABLE MD
MMD-140
DATA
WRITE PROTECT

## RM-91

### Remote control unit

- To record or print an image on a still video recorder or a video printer

| | |
|---|---|
| Connector: | Stereo mini |
| Cable length: | 5 m |

PRINT
RM-91
SONY

# 4-3 Digital still camera/recorder accessories

## FS-20

### Foot swich

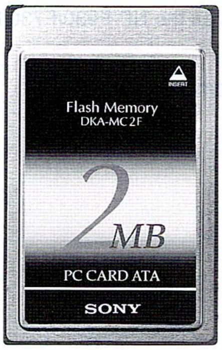
•To record or print an image on a still video recorder or a video printer

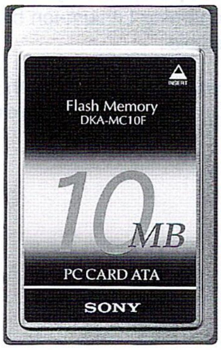
| | |
|---|---|
| Connector: | Monaural mini |
| Cable length: | 5m |

## DKA-MC2F/DKA-MC10F

### 2MB/10MB PC Card for the DKC-ID1

| | |
|---|---|
| Interface: | PCMCIA-ATA |
| Type of memory: | Flash memory |
| Dimension: | 85.6 × 54.0 × 5.0 (mm) |
| Recordable images (DKC-ID1): | DKA-MC2F: 7 (Fine mode), 29 (Normal mode)<br>DKA-MC10F: 42 (Fine mode), 158 (Normal mode) |


INSERT
Flash Memory
DKA-MC2F
2MB
PC CARD ATA
SONY

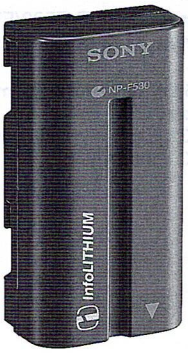

INSERT
Flash Memory
DKA-MC10F
10MB
PC CARD ATA
SONY

## NP-F530

### Rechargeable Lithium-ion Battery

•Can be used for the DKC-ID1

| | |
|---|---|
| Voltage: | 7.2V |
| Capacity: | 1350mAh |
| Dimensions (W × H × D): | 38.4 × 20.6 × 70.8 (mm) |
| Mass: | Approx. 110g |


SONY
NP-F530
InfoLITHIUM

## NP-F730

### Rechargeable Lithium-ion Battery

•Can be used for the DKC-ID1

| | |
|---|---|
| Voltage: | 7.2V |
| Capacity: | 2700mAh |
| Dimensions (W × H × D): | 38.4 × 39.1 × 70.8 (mm) |
| Mass: | Approx. 200g |

SONY
NP-F730
InfoLITHIUM

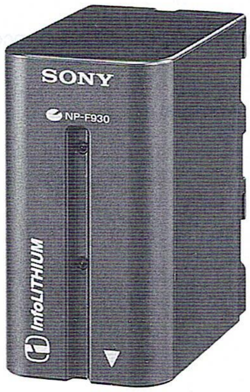
# 4-3 Digital still camera/recorder accessories

## NP-F930

**Rechargeable Lithium-ion Battery**

- Can be used with the DKC-ID1

| | |
|---|---|
| Voltage: | 7.2V |
| Capacity: | 4050mAh |
| Dimensions: | 38.4(W) × 59.7(H) × 70.8(D) mm |
| Mass: | Approx. 280 g |



---

## AC-V615

**AC adaptor/battery charger**

•For charging Lithium-ion batteries such as the NP-F930/F730/F530 is possible

| | |
|---|---|
| Dimensions: | 56(W) × 44(H) × 100(D) mm |
| Mass: | Approx. 190 g |

---

## BC-V500

**Battery charger**

•Compact battery chager for the NP-F530/F730/F930, etc.

•Two batteries can be charged at the same time

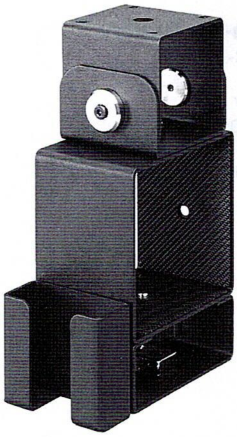
| | |
|---|---|
| Dimensions: | 45(W) × 98(H) × 50(D) mm |
| Mass: | Approx. 120 g |
| Power requirements: | AC100 to 240V, 50/60Hz |
| Output: | DC 8.4V/0.6A |

SONY
BATTERY CHARGER
BC-V500

---

## VCT-S20

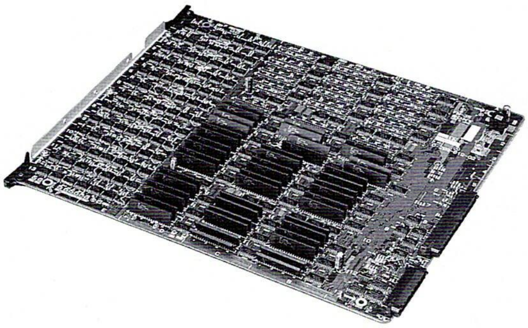
**Tripod Adaptor for the DKC-5000**



# 4-3 Digital still camera/recorder accessories

## DKB-5008

**Frame Memory Board for the DKC-5000**



## VCL-713BXS

**Zoom Lens for DKC-5000**

•x13 Zoom Lens •Standard lens for DKC-5000

| | |
|---|---|
| Lens mount: | 38 mm bayonet mount |
| Focal length: | 7.5 to 97.5 mm |
| Maximum relative aperture: | F1.4 |
| Minimum focal distance: | 1.0 mm |
| Filter screw: | 72 mm |
| Aperture speed : | 0.4 s |
| Control: | Focus: Manual, Zoom: Manual<br>Iris: Servo/Manual |
| Mass: | 850 g (1.9 lb) |

## VCL-1205BYS

**Zoom Lens for DKC-ST5**

| | |
|---|---|
| Lens mount: | 2/3-inch bayonet |
| Focal length: | 12.5 to 63 mm (equivalent to a focal length of 50 to 252 mm in 35 mm film format) |
| Aperture: | F2 to F16 |
| Mass: | 1.2 kg (2 lb 10 oz) |

FOCUS
ZOOM
MANUAL
POWER

# SECTION 8 SURVEILLANCE PRODUCTS

**1. Video cameras**

1-1. Colour video cameras

SSC-CX34P ........ 244
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SSC-DC10P ........ 246
SSC-DC14P/DC18P ........ 247
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**2. Monitors**

2-1. Colour monitors

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2-2. Monochrome monitors

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5-1. Time lapse video recorders

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SVT-1000P ........ 271
SVT-124P ........ 272
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**7. Automotive camera/monitors**

7-1. Automotive monochrome video camera

SSC-534AM ........ 276

7-2. Automotive monochrome video monitors

SSM-504AM/724AMR ........ 277

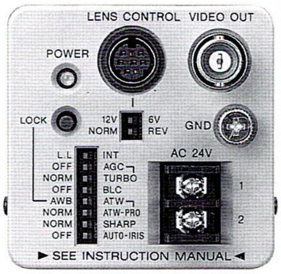
## SSC-CX34P

### Built-in Zoom Lens Colour Video Camera

•Especially designed for surveillance applications •Built-in x12 switchable motorized/auto iris zoom lens with zoom/focus preset capabilities •The lens zoom, focus and iris function can be remotely controlled from an external controller/receiver (Lens control voltage, ±6V or ±12V is selectable) •Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation •High density 1/3-inch IT Hyper HAD CCD offers a high resolution of 470TV lines and high sensitivity with a minimum illumination of 4.5 lx (F1.8) •Excellent signal-to-noise ratio of 50dB •Extra gain with Turbo AGC function, providing 6dB more gain than conventional AGC •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •Three alternative automatic white balance control modes: AWB (Auto White Balance) by one push/ATW (Auto Tracing White Balance)/ATWpro •New ATWpro mode ensures reliable white balance control based on the absolute colour temperature of the object (The effective operational colour range is 2500K to 6000K)

SONY
COLOR VIDEO CAMERA Digital
SONY VIDEO LENS/OPTICAL 12x
ZOOM
FOCUS
V PHASE
VIDEO LEVEL
12x OPTICAL ZOOM

SONY VIDEO LENS/OPTICAL 12x
f=5.4~64.8mm 1:1.8 ⌀37

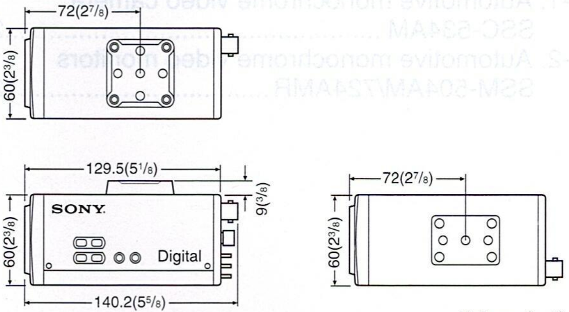

LENS CONTROL
VIDEO OUT
POWER
LOCK
12V NORM
6V REV
GND
L.L
OFF
NORM
OFF
AWB
NORM
NORM
OFF
INT
AGC
TURBO
BLC
ATW
ATW-PRO
SHARP
AUTO-IRIS
AC 24V
1
2
► SEE INSTRUCTION MANUAL ◄

| | |
|---|---|
| Supplied Accessories: | Tripod adaptor (1)<br>Lens control cable (1)<br>Operation manual (1) |

### Specifications

| | |
|---|---|
| Image device: | 1/3-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752 (H) × 582 (V) |
| Sensing area: | 4.4 × 3.3 mm |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with AC line lock |
| Phase control: | V phase adjustment (±90˚) |
| Horizontal resolution: | 470TV lines |
| Lens mount: | Built-in ×12 zoom lens |
| Minimum illumination: | AGC ON (TURBO mode)<br>2.4 lx at F1.8 (30 IRE)*<br>4.5 lx at F1.8 (50 IRE)<br>15 lx at F1.8 (100 IRE)<br>*Equivalent with 1.1 lx at F1.2 fixed lens (30 IRE) |
| Aperture control: | SHARP/NORMAL switchable |
| Enhancer: | 3H |
| Automatic gain control (AGC): | TURBO/NORMAL/OFF switchable |
| Electronic shutter: | Not applicable |
| White balance: | ATWpro/ATW/AWB (one-push) switchable |
| Backlight compensation: | Smart control (BLC ON/OFF switchable) |
| Signal-to-noise ratio: | 50dB (Weight ON, AGC OFF) |
| Video out: | BNC, 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10˚C to 50˚C (14˚F to 122˚F) |
| Storage temperature: | –40˚C to 60˚C (–40˚F to 140˚F) |
| Power requirements: | AC 24V, 50Hz |
| Power consumption: | 4.8W |
| Mass: | 520 g (1 lb 2 oz) |
| Connectors: | AC 24V terminals, LENS CONTROL (Mini DIN 8-pin), VIDEO OUT (BNC), GND |

**Dimensions**


72(2⁷/₈)
60(2³/₈)
129.5(5¹/₈)
9(³/₈)
SONY
Digital
140.2(5⁵/₈)
72(2⁷/₈)
60(2³/₈)

Unit: mm (inch)

## SSC-DC50P/54P

### CCD Colour Video Camera

•Especially designed for surveillance applications •Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation •For faster backlight compensation, the detection area can be preset •High density 1/2-inch IT Hyper HAD CCD offers a high resolution of 470TV lines and high sensitivity with a minimum illumination of 1.9 lx (F1.2) •Excellent signal-to-noise ratio of 50dB •Y/C output capability •Extra gain with Turbo AGC function, providing 6dB more gain than conventional AGC •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •Four alternative white balance control modes: AWB (Auto White Balance) / ATW (Auto Tracing White Balance)/ATWpro / 5600K •New ATWpro mode ensures reliable white balance control based on the absolute colour temperature of the object (The effective operational colour range is 2500K to 6000K) •Variable speed electronic shutter •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts C/CS-mount lenses •External synchronization with VBS or VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12V DC power supply can also be used (Mode B) •External synchronization with VBS, VS or AC line lock •AC power operation: AC 24V, 50Hz

| | |
|---|---|
| Supplied Accessories: | Lens connector (1)<br>Lens mount cap (1)<br>Operation manual (1) |

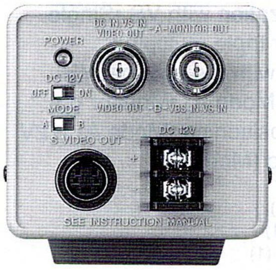
### Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752 (H) × 582 (V) |
| Sensing area: | 6.3 × 4.7 mm |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | DC50P: Internal or external with VBS/VS or MPX-VS<br>DC54P: Internal or external with VBS/VS or AC line lock |
| Phase control: | H/SC phase adjustment<br>(H phase:±0.12H, SC phase:360° with 1/180° switch)<br>V phase adjustment (±90°) for AC line lock<br>(SSC-DC54P only) |
| Horizontal resolution: | 470TV lines |
| Lens mount: | C/CS-mount adjustable |
| Minimum illumination: | AGC ON (TURBO mode)<br>1.0 lx at F1.2 (30 IRE)<br>1.9 lx at F1.2 (50 IRE)<br>6.5 lx at F1.2 (100 IRE) |
| Aperture control: | SHARP/NORMAL switchable |
| Enhancer: | 3H |
| Automatic gain control (AGC): | TURBO/NORMAL/OFF switchable |
| Electronic shutter: | 1/50, 1/120*, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)<br>* Flickerless mode |
| CCD IRIS control: | ON/OFF switchable, 1/50 to 1/100000 (seconds) |
| White balance: | ATWpro/ATW/AWB (one-push)/5600K switchable |
| Backlight compensation: | Smart Control (BLC ON/OFF switchable, eight AE spot is selectable) |
| Signal-to-noise ratio: | 50dB (Weight ON, AGC OFF) |
| Video out: | BNC: 1.0Vp-p, 75Ω, sync negative<br>Y/C: Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω |
| Operating temperature: | –10°C to 50°C (14°F to 122°F) |
| Storage temperature: | –40°C to 60°C (–40°F to 140°F) |
| Power requirements: | DC50P: 1) Multiplexing with YS-W150P/W250P<br>2) DC 12V from DC 12V power supply<br>DC54P: AC 24V, 50Hz |
| Power consumption: | DC50P: 1) 5.5W supplied from YS-W150P/W250P<br>2) 4.5W at DC 12V<br>DC54P : 6.0W |
| Mass: | 600 g (1 lb 5 oz) |
| Auto iris type: | DC/VIDEO servo type |

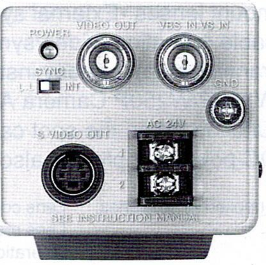
SONY
Hyper HAD
COLOR VIDEO CAMERA
Digital
LOCK
OFF
NORM
OFF
OFF
OFF
WHT BAL
NORM
AGC
TURBO
BLC
SHUTTER
1—A
1—B
SHARP
180
AUTO-IRIS
VIDEO
DC
SHUTTER
AWB LOCK
AE SPOT
SC PHASE
PHASE

Lens is optional

SSC-DC50P

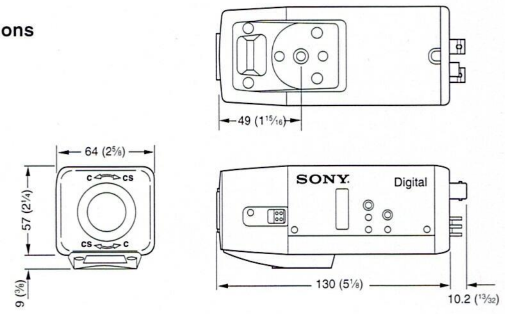

DC IN/VS IN
VIDEO OUT
–A–MONITOR OUT
POWER
DC 12V
OFF
ON
MODE
A
B
VIDEO OUT –B–VBS IN/VS IN
DC 12V
S VIDEO OUT
+
–
SEE INSTRUCTION MANUAL

SSC-DC54P


POWER
VIDEO OUT
VBS IN/VS IN
SYNC
L.L
INT
GND
AC 24V
S VIDEO OUT
1
2
SEE INSTRUCTION MANUAL

| | |
|---|---|
| Connectors: | DC50P: DC 12V terminals, LENS (4-pin), Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC), S-VIDEO OUT (Mini DIN 4-pin) Mode B (DC 12V operation):VIDEO OUT (BNC), VBS/VS IN (BNC), S-VIDEO OUT (Mini DIN 4-pin)<br>DC54P: AC 24V terminals, LENS (4-pin), VBS/VS IN (BNC), VIDEO OUT (BNC), S-VIDEO OUT (Mini DIN 4-pin), GND |

**Dimensions**

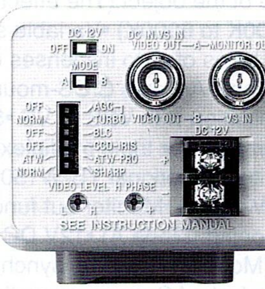

49 (1¹⁵⁄₁₆)
64 (2⅝)
C
CS
CS
C
57 (2¼)
9 (⅜)
SONY
Digital
130 (5⅛)
10.2 (¹³⁄₃₂)

## SSC-DC10P

### CCD Colour Video Camera

•Especially designed for surveillance applications •Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation •High density 1/3-inch IT Hyper HAD CCD offers a high resolution of 470TV lines and high sensitivity with a minimum illumination of 1.7 lx (F1.2) •Excellent signal-to-noise ratio of 50dB •Extra gain with Turbo AGC function, providing 6dB more gain than conventional AGC •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •Two alternative white balance control modes : ATW(Auto Tracing White Balance) / ATWpro •New ATWpro mode ensures reliable white balance control based on the absolute colour temperature of the object (The effective operational colour range is 2500K to 6000K) •Accepts two types of auto iris lenses (DC servo type/Video servo type) •Accepts C/CS-mount lenses •External synchronization with VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12V DC power supply can also be used (Mode B)

SONY
Hyper HAD
COLOR VIDEO CAMERA
Digital
LENS
AUTO-IRIS
DC
Lens is optional

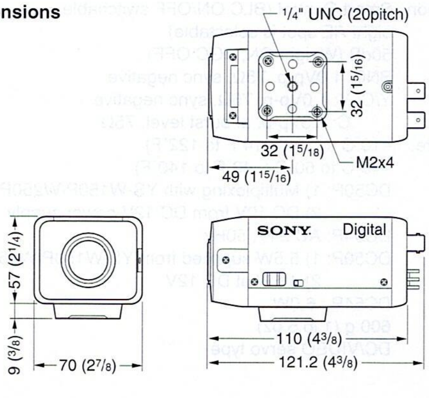

DC 12V
OFF
ON
MODE
A
B
DC IN, VS IN
VIDEO OUT—A—MONITOR OUT
OFF
NORM
OFF
OFF
ATW
NORM
AGC
TURBO
BLC
CCD-IRIS
ATW-PRO
SHARP
VIDEO OUT—B—VS IN
DC 12V
VIDEO LEVEL
H PHASE
L
H
SEE INSTRUCTION MANUAL

Supplied Accessories: Lens connector (1)
Lens mount cap (1)
Operation manual (1)

### Specifications

| | |
|---|---|
| Image device: | 1/3-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752 (H) × 582 (V) |
| Sensing area: | 4.4 × 3.3 mm |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with VS/VBS* or MPX-VS<br>* The burst signal is not locked. |
| Phase control: | H phase adjustment (±0.25H) |
| Horizontal resolution: | 470TV lines |
| Lens mount: | C/CS-mount adjustable |
| Minimum illumination: | AGC ON (TURBO mode)<br>1.1 lx at F1.2 (30 IRE)<br>1.7 lx at F1.2 (50 IRE)<br>10 lx at F1.2 (100 IRE) |
| Aperture control: | SHARP/NORMAL switchable |
| Enhancer: | 3H |
| Automatic gain control (AGC): | TURBO/NORMAL/OFF switchable |
| CCD IRIS control: | ON/OFF switchable, 1/50 to 1/100000 (seconds) |
| White balance: | ATWpro/ATW switchable |
| Backlight compensation: | Smart Control (BLC ON/OFF switchable) |
| Signal-to-noise ratio: | 50dB (Weight ON, AGC OFF) |
| Video out: | BNC: 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10˚C to 50˚C (14˚F to 122˚F) |
| Storage temperature: | –40˚C to 60˚C (–40˚F to 140˚F) |
| Power requirements: | 1) Multiplexing with YS-W150P/W250P<br>2) DC 12V from DC 12V power supply |
| Power consumption: | 1) 4.0W supplied from YS-W150P/W250P<br>2) 3.0W at DC 12V |
| Mass: | 430 g (15 oz) |
| Auto iris type: | DC/VIDEO servo type |
| Connectors: | DC 12V terminals, LENS (4-pin), Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) Mode B (DC 12V operation): VIDEO OUT (BNC), VS IN (BNC) |

### Dimensions


1/4" UNC (20pitch)
32 (1 5/16)
32 (1 5/18)
M2x4
49 (1 15/16)
57 (2 1/4)
9 (3/8)
70 (2 7/8)
SONY
Digital
110 (4 3/8)
121.2 (4 3/8)

Unit: mm (inch)

## SSC-DC14P/DC18P

### CCD colour video camera

•Especially designed for surveillance applications •High density 1/3-inch IT Hyper HAD CCD offers high horizontal resolution of 470TV lines and high sensitivity with a minimum illumination of 1.9 lx (F1.2) •Excellent signal-to-noise ratio of 50dB •Digital control Smart Control function executes the intelligent and flexible automatic backlight compensation •Turbo AGC raises drastically sensitivity by automatically controlling video gain in a range that is 6dB wider than the normal AGC range •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •CCD IRIS function allows use of inexpensive manual iris lenses •Two alternative automatic white balance control modes: ATW (Auto Tracing White Balance)/ATW pro •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses •External synchronization with AC line lock •Selection of power source: AC 24V for SSC-DC14P, AC 220 to 240V for SSC-DC18P

| | | |
|---|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>Operating instruction manual | |
| Optional accessories: | Auto iris lens | VCL-3V8WEAP (3.5 to 8.0 mm, F1.8)<br>VCL-S02WEAP (2.8 mm, F1.3)<br>VCL-S04WEAP (4.0 mm, F1.4) |

### Specifications

| | |
|---|---|
| Image device: | 1/3-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752 (H) × 582 (V) |
| Sensing area: | 4.4 mm × 3.3 mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with AC line lock (SSC-DC14P: AC 24V, SSC-DC18P: AC 220 to 240V) |
| Horizontal resolution: | 470 TV lines |
| Lens mount: | C/CS-mount (Back focus adjustable) |
| Minimum illumination: | AGC ON (TURBO mode)<br>1.2 lx at F1.2 (30 IRE)<br>1.9 lx at F1.2 (50 IRE)<br>13 lx at F1.2 (100 IRE) |
| Aperture: | SHARP/NORMAL switchable |
| Enhancer: | 3H |
| Automatic Gain Control: | TURBO/NORMAL/OFF switchable |
| Phase control: | V-phase control (±90˚) |
| CCD IRIS control: | ON/OFF switchable |
| White balance: | ATW pro/ATW switchable |
| Backlight compensation: | Smart Control |
| Signal-to-noise ratio: | 50dB (Weight ON, AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50˚C (14 to 122˚F ) |
| Storage temperature: | –40 to 60˚C (–40 to 140˚F ) |
| Power requirements: | SSC-DC14P: AC 24V<br>SSC-DC18P: AC 220 to 240V |
| Power consumption: | SSC-DC14P: 4.5W<br>SSC-DC18P: 5.5W |
| Mass: | SSC-DC14P: Approx. 550 g (1 lb 3 oz)<br>SSC-DC18P: Approx. 770 g (1 lb 11 oz) |
| Auto iris lens: | DC/VIDEO driven type |
| Connectors: | SSC-DC14P: AC 24V terminals, LENS (4-pin) VIDEO OUT (BNC), GND<br>SSC-DC18P: LENS (4-pin),VIDEO OUT (BNC) |

SONY
Digital
Hyper HAD

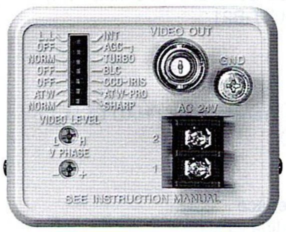
SSC-DC14P

SONY
Digital
Hyper HAD

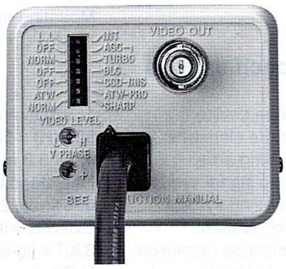
SSC-DC18P

Lenses are optional

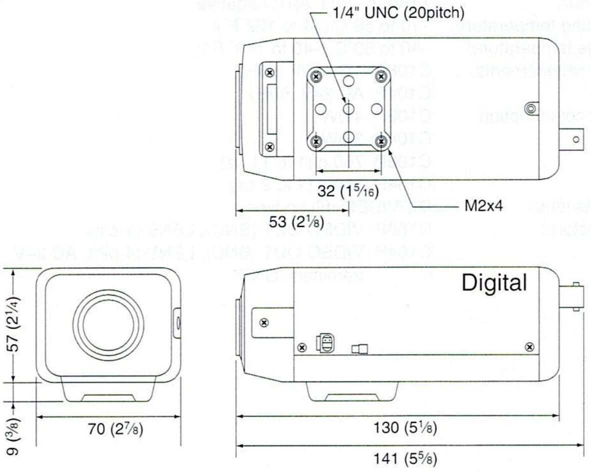
SSC-DC14P


L.L
OFF
NORM
OFF
OFF
ATW
NORM
INT
AGC
TURBO
BLC
CCD-IRIS
ATW-PRO
SHARP
VIDEO OUT
GND
AC 24V
VIDEO LEVEL
V PHASE
SEE INSTRUCTION MANUAL

SSC-DC18P


L.L
OFF
NORM
OFF
OFF
ATW
NORM
INT
AGC
TURBO
BLC
CCD-IRIS
ATW-PRO
SHARP
VIDEO OUT
VIDEO LEVEL
V PHASE
SEE INSTRUCTION MANUAL

**Dimensions**


1/4" UNC (20pitch)
32 (1⁵⁄₁₆)
M2x4
53 (2⅛)
Digital
57 (2¼)
9 (⅜)
70 (2⅞)
130 (5⅛)
141 (5⅝)

Unit: mm (inch)

## SSC-C108P/C104P

### CCD colour video cameras

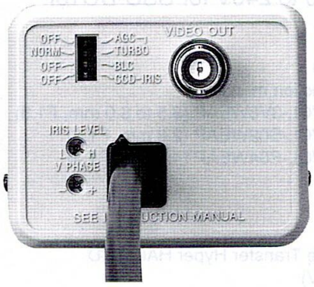
•Especially designed for surveillance applications •1/3-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 0.9 lx (F1.2) •Excellent signal-to-noise ratio of 52dB •Automatic backlight compensation •Turbo AGC improves sensitivity by boosting its video gain over the AGC range •CCD IRIS function allows use of inexpensive manual iris lenses •ATW (Auto Tracing White Balance) for white balance adjustment •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses •External synchronization with AC line lock •AC 220 to 240V power operation

SONY
Hyper HAD
COLOR VIDEO CAMERA
LENS
AUTO-IRIS
VIDEO
DC
LOCK
TELEVISION LENS

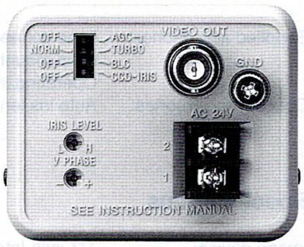
Lens is optional

| | |
|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>Operating instruction manual |
| Optional accessories: | Auto iris lens VCL-3V8WEAP (3.5 to 8.0 mm, F1.8)<br>VCL-S02WEAP (2.8 mm, F1.3)<br>VCL-S04WEAP (4.0 mm, F1.4)<br>Mounting bracket YT-B21 |

SSC-C108P


OFF
NORM
OFF
OFF
AGC
TURBO
BLC
CCD-IRIS
VIDEO OUT
IRIS LEVEL
L
H
V PHASE
–
+
SEE INSTRUCTION MANUAL

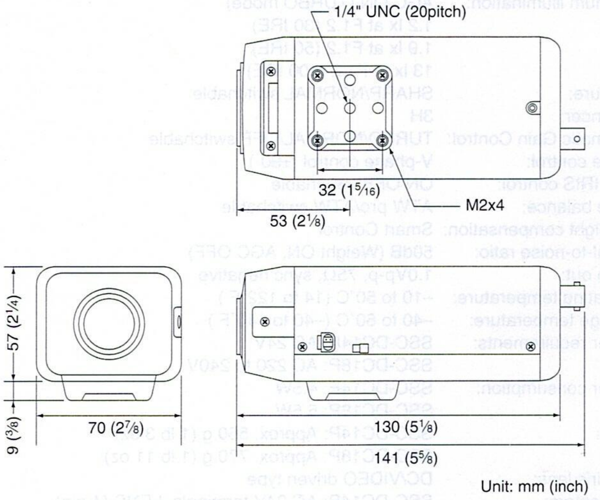
SSC-C104P


OFF
NORM
OFF
OFF
AGC
TURBO
BLC
CCD-IRIS
VIDEO OUT
GND
AC 24V
IRIS LEVEL
L
H
V PHASE
–
+
2
1
SEE INSTRUCTION MANUAL

### Specifications

| | |
|---|---|
| Image device: | 1/3-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 500 (H) × 582 (V) |
| Sensing area: | 4.4 × 3.3 mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | External with AC line lock |
| Horizontal resolution: | 330TV lines |
| Lens mount: | C/CS-mount adjustable |
| Minimum illumination: | AGC ON (TURBO mode)<br>0.9 lx at F1.2 (40 IRE) |
| Enhancer: | 3H |
| Automatic Gain Control: | TURBO/NORMAL/OFF switchable |
| Phase control: | V-phase control (±90˚) |
| CCD IRIS: | 1/50 to 1/100000 (seconds) |
| CCD IRIS control: | ON/OFF switchable |
| White balance: | ATW |
| Backlight compensation: | BLC ON/OFF switchable |
| Signal-to-noise ratio: | More than 52dB (AGC OFF, Weight ON) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50˚C (14 to 122˚F ) |
| Storage temperature: | –40 to 60˚C (–40 to 140˚ F ) |
| Power requirements: | C108P: AC 230V, 50Hz<br>C104P: AC 24V, 50Hz |
| Power consumption: | C108P: 4.0W<br>C104P: 3.5W |
| Mass: | C108P: 760 g (1 lb 11 oz)<br>C104P: 550 g (1 lb 2 oz) |
| Auto iris lens: | DC/VIDEO driven type |
| Connectors: | C108P: VIDEO OUT (BNC), LENS (4-pin)<br>C104P: VIDEO OUT (BNC), LENS (4-pin), AC 24V treminals, GND* |

#### Dimensions


1/4" UNC (20pitch)
32 (1 5/16)
M2x4
53 (2 1/8)
57 (2 1/4)
9 (3/8)
70 (2 7/8)
130 (5 1/8)
141 (5 5/8)
Unit: mm (inch)

## SSC-DC30P/DC38P

### CCD colour video camera

•Especially designed for surveillance applications •High density 1/2-inch IT Hyper HAD CCD offers high horizontal resolution of 470TV lines and high sensitivity with a minimum illumination of 1.9 lx (F1.2) •Excellent signal-to-noise ratio of 48dB •Digital control Smart Control function executes the intelligent and flexible automatic backlight compensation •10-bit linear A/D converter realizes clear and noiseless picture reproduction •CCD IRIS function allows use of inexpensive manual iris lenses •Two alternative automatic white balance control modes: AWB (Auto White Balance)/ATW pro (New Auto Tracing White Balance) •Variable speed electronic shutter •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses •Easy control of main functions using control switches on the side panel (Shutter speed setting, CCD IRIS control, AGC setting and lens selection)

### Exclusive features for SSC-DC30P

•DC 12/24V power operation •External synchronization with VS or VBS* •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12V DC power supply can also be used (Mode B)

### Exclusive features for SSC-DC38P

•AC 220 to 240V operation •External synchronization with VS or AC line lock

| | | |
|---|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>Operating instruction manual | |
| Optional accessories: | Camera adaptor | YS-W150P, YS-W250P (for SSC-DC30P only) |
| | Manual iris lens | VCL-S03XM (3.6 mm, F1.6)<br>VCL-S06XM (6.0 mm, F1.2)<br>VCL-S12XM (12 mm, F1.2) |
| | Auto iris lens | VCL-S03XEA (3.6 mm, F1.6)<br>VCL-S06XEA (6.0 mm, F1.2)<br>VCL-S12XEA (12 mm, F1.2) |
| | Aspherical auto iris lens | VCL-3ADXEA (3.8 mm, F0.8) |

### Specifications

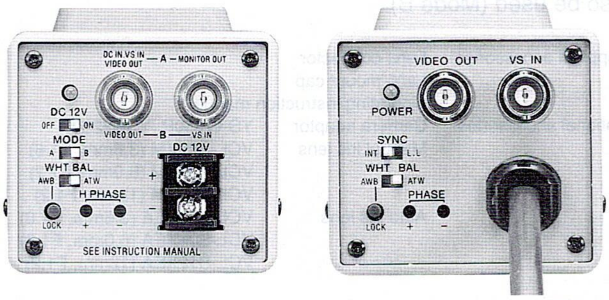
| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752(H) × 582(V) |
| Sensing area: | 6.3 mm × 4.7 mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | SSC-DC30P: Internal or external with VS (VBS*)<br>SSC-DC38P: Internal or external with VS or AC line lock |
| Horizontal resolution: | 470 TV lines |
| Lens mount: | C/CS-mount (Back focus adjustable) |
| Minimum illumination: | At F1.2 (AGC ON), S/N ratio at 35dB<br>15 IRE (107mV): 0.5 lx<br>35 IRE (250mV): 1.9 lx<br>100 IRE (714mV):11.0 lx |
| Enhancer: | 3H |
| Automatic Gain Control: | ON/OFF switchable |
| Electronic shutter: | 1/50, 1/120(FL), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| Phase control: | SSC-DC30P: H-phase control (±0.25H)<br>SSC-DC38P: V-phase control (±90˚) |
| CCD IRIS control: | ON/OFF switchable, 1/50 to 1/100,000 (s) |
| White balance: | ATW pro/AWB switchable |
| Backlight compensation: | Smart Control |
| DSP type: | 10-bit linear A/D |
| Signal-to-noise ratio: | 48dB (AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50˚C (14 to 122˚F ) |
| Storage temperature: | –40 to 60˚C (–40 to 140˚F ) |
| Power requirements: | SSC-DC30P: DC 24V from YS-W150P/W250P or DC 12V from DC 12V power supply<br>SSC-DC38P: AC 220 to 240V |
| Power consumption: | SSC-DC30P: 5.5W supplied from YS-W150P/W250P or 4.5W at DC 12V<br>SSC-DC38P: 6.0W |
| Maximum cable length: | (SSC-DC30P only)<br>300m using RG-59B/U (3C-2V)<br>500m using RG-6A/U (5C-2V)<br>600m using RG-11A/U (7C-2V) |
| Mass: | SSC-DC30P: Approx. 620 g (1 lb 6 oz)<br>SSC-DC38P: Approx. 1.1 kg (2 lb 7 oz) |
| Auto iris lens: | DC/VIDEO driven type |
| Connectors: | SSC-DC30P: DC 12V terminals, LENS (4-pin), Mode A (Triple multiplexing operation): DC IN/ VS IN/ VIDEO OUT (BNC), MONITOR OUT (BNC)<br>Mode B (DC 12V operation): VIDEO OUT (BNC), VS IN (BNC)<br>SSC-DC38P: LENS (4-pin),VIDEO OUT (BNC) VS IN (BNC) |

SONY
Digital
Hyper HAD

SSC-DC30P SSC-DC38P

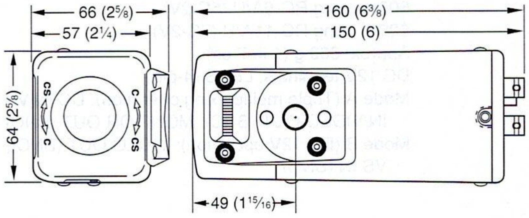
Lenses are optional

SSC-DC30P SSC-DC38P

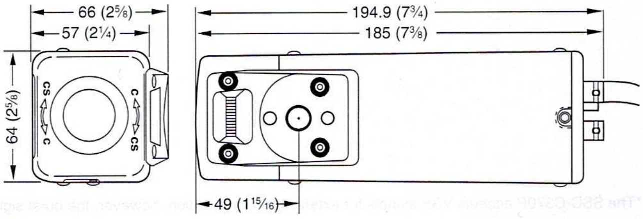


**Dimensions**

SSC-DC30P



SSC-DC38P



Unit: mm (inch)

*The SSC-DC30P accepts VBS signals for external synchronization, however, the burst signal is not locked.

## SSC-C370P

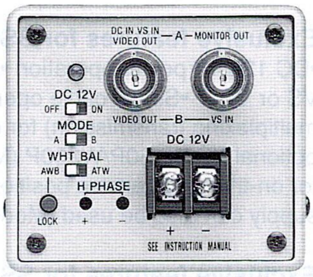
### CCD colour video camera

•Especially designed for surveillance applications •High density 1/2-inch IT Hyper HAD CCD offers extremely high resolution of 470TV lines and high sensitivity with a minimum illumination of 2.5 lx (F1.2) •Excellent signal-to-noise ratio of 48dB •CCD IRIS function allows use of inexpensive manual iris lenses •Two alternative automatic white balance control modes: AWB (Auto White Balance)/ATW (Auto Tracing White Balance) •Variable speed electronic shutter •Accepts C-mount lenses •External synchronization with VS or VBS* •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12V DC power supply can also be used (Mode B)

SONY
Hi Resolution
BACK FOCUS
LENS
CCD-IRIS
COLOR VIDEO CAMERA SSC-C370P
12mm 1:1.2

Lens is optional

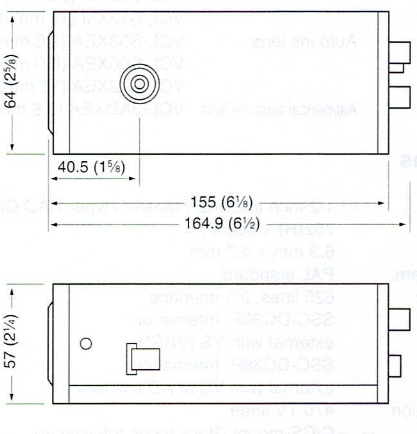
| | | |
|---|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>Operating instruction manual | |
| Optional accessories: | Camera adaptor | YS-W150P, YS-W250P |
| | Manual iris lens | VCL-S03XM (3.6mm, F1.6)<br>VCL-S06XM (6.0mm, F1.2)<br>VCL-S12XM (12mm, F1.2) |
| | Auto iris lens | VCL-S03XEA (3.6mm, F1.6)<br>VCL-S06XEA (6.0mm, F1.2)<br>VCL-S12XEA (12mm, F1.2) |



### Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752(H) × 582(V) |
| Sensing area: | 6.3mm × 4.7mm |
| Video signal system: | PAL standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with VS (VBS)* |
| Horizontal resolution: | 470TV lines |
| Lens mount: | C-mount (Back focus adjustable) |
| Minimum illumination: | AGC ON<br>2.5 lx at F1.2 |
| Enhancer: | 3H |
| Automatic Gain Control: | ON/OFF switchable |
| Electronic shutter: | 1/50, 1/120(FL), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| Phase control: | H-phase control |
| CCD IRIS control: | ON/OFF switchable |
| White balance: | ATW/AWB switchable |
| Signal-to-noise ratio: | 48dB (AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | −10 to 50°C (14 to 122°F) |
| Storage temperature: | −40 to 60°C (−40 to 140°F) |
| Power requirements: | DC 24V from YS-W150P/W250P or DC 12V from DC 12V power supply |
| Power consumption: | 4.0W supplied from YS-W150P/W250P or 2.8W at DC 12V |
| Maximum cable length: | 300m using RG-59B/U (3C-2V)<br>500m using RG-6A/U (5C-2V)<br>600m using RG-11A/U (7C-2V) |
| Mass: | Approx. 660 g (1 lb 7 oz) |
| Connectors: | DC 12V terminals, LENS (4-pin)<br>Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC)<br>Mode B (DC 12V operation): VIDEO OUT (BNC), VS IN (BNC) |

### Dimensions



Unit: mm (inch)

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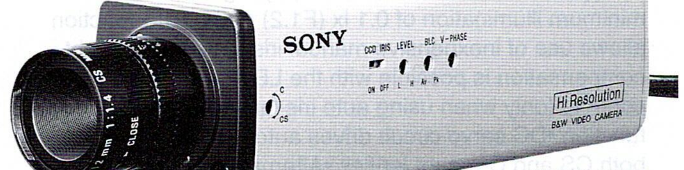
*The SSC-C370P accepts VBS signals for external synchronization, however, the burst signal is not locked.

# SPT-M308CE/M304CE

## CCD monochrome video cameras

•Especially designed for surveillance applications •1/3-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 0.25 lx (F1.2) •Outstanding horizontal resolution of 570TV lines •CCD IRIS function allows use of inexpensive manual iris lenses •Backlight compensation is possible with the LEVEL and BLC volume controls (only when using auto iris lenses or the CCD IRIS function) •DC servo circuit drives auto iris facility •Accepts C or CS-mount lenses •AC Line Lock for external synchronization •AC 220 to 240V (SPT-M308CE)/AC 24V (SPT-M304CE) power operation

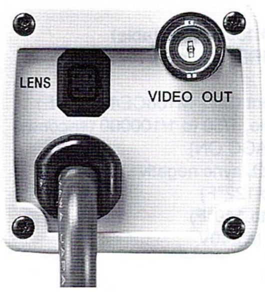

SPT-M308CE

SPT-M304CE

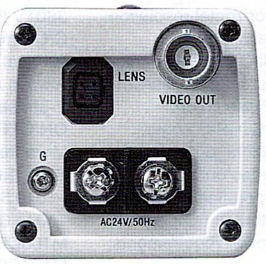
Lenses are optional

| | | |
|---|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>Operating instruction manual | |
| Optional accessories: | Auto iris lens | VCL-3V8WEAP (3.5 to 8.0mm, F1.8)<br>VCL-S02WEAP (2.8mm, F1.3)<br>VCL-S04WEAP (4.0mm, F1.4) |

SPT-M308CE



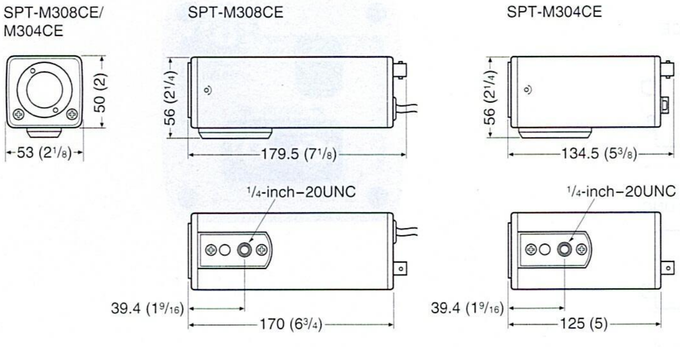
SPT-M304CE



### Specifications

| | |
|---|---|
| Image device: | 1/3-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752 (H) × 582 (V) |
| Sensing area: | 4.4 mm × 3.3 mm |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | External with AC line lock |
| Horizontal resolution: | 570TV lines |
| Lens mount: | C/CS-mount (Back focus adjustable) |
| Minimum illumination: | AGC ON 0.25 lx at F1.2 (50 IRE) (350 mV) |
| Automatic Gain Control: | Always AGC ON |
| Phase control: | V-phase adjustment (±90°) |
| CCD IRIS: | 1/50 to 1/50000 (seconds) |
| CCD IRIS control: | ON/OFF switchable |
| Backlight compensation: | Volume control |
| Signal-to-noise ratio: | 45dB (AGC OFF) |
| Video out: | BNC, 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F) |
| Storage temperature: | –40 to 60°C (–40 to 140°F) |
| Power requirements: | M308CE: AC 220 to 240V, 50Hz<br>M304CE: AC 24V, 50Hz |
| Power consumption: | M308CE: 6.0W<br>M304CE: 4.5W |
| Mass: | M308CE: 700 g (1 lb 8 oz)<br>M304CE: 350 g (12.3 oz) |
| Auto iris lens: | DC servo type |
| Connectors: | M308CE: VIDEO OUT (BNC), LENS (4-pin)<br>M304CE: VIDEO OUT (BNC), LENS (4-pin), AC 24V terminal, GND |

**Dimensions**



Unit: mm (inch)

## SPT-M108CE/M104CE/M102CE

### CCD monochrome video cameras

•Especially designed for surveillance applications •1/3-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 0.1 lx (F1.2) •CCD IRIS function allows use of inexpensive manual iris lenses •Backlight compensation is possible with the LEVEL and BLC volume controls (only when using auto iris lenses or the CCD IRIS function •DC servo circuit drives auto iris facility •Accepts both CS and C-mount lenses •Alternative power source operation (AC 220 to 240V for the SPT-M108CE, AC 24V for the SPT-M104CE, DC 12V for the SPT-M102CE) •External synchronization with AC line lock (for the SPT-M108CE/M104CE)

SPT-M108CE

SPT-M102CE

SPT-M104CE

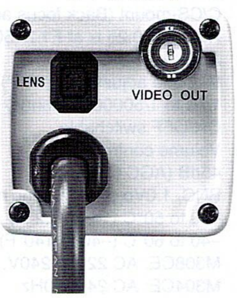
Lenses are optional

| | | |
|---|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>Operating instruction manual | |
| Optional accessories: | Auto iris lens | VCL-3V8WEAP (3.5 to 8.0 mm, F1.8)<br>VCL-S02WEAP (2.8 mm, F1.3)<br>VCL-S04WEAP (4.0 mm, F1.4) |

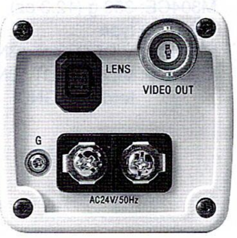
### Specifications

| | |
|---|---|
| Image device: | 1/3-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 500 (H) × 582 (V) |
| Sensing area: | 4.4 × 3.3 mm |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | M108CE/M104CE: Extarnal with AC line lock<br>M102CE: Internal |
| Horizontal resolution: | 380TV lines |
| Lens mount: | C/CS-mount (Back focus adjustable) |
| Minimum illumination: | 0.1 lx at F1.2 (50 IRE) (350mV) |
| Automatic Gain Control: | Always AGC ON |
| Phase control: | V-phase adjustment (SPT-M108CE/M104CE) |
| CCD IRIS control: | ON/OFF switchable, 1/50 to 1/100000 (seconds) |
| Signal-to-noise ratio: | More than 45dB (AGC ON) |
| Video out: | BNC, 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F) |
| Storage temperature: | –40 to 60°C (–40 to 140°F) |
| Power requirements: | M108CE: AC 220 to 240V<br>M104CE: DC 24V<br>M102CE: DC 12V |
| Power consumption: | M108CE: 6.0W<br>M104CE: 4.5W<br>M102CE: 2.4W |
| Mass: | M108CE: Approx. 730 g (1 lb 10 oz)<br>M104CE: Approx. 300 g (10.6 oz)<br>M102CE: Approx. 350 g (12.3 oz) |
| Auto iris lens: | DC servo type |
| Connectors: | LENS (4-pin), VIDEO OUT (BNC), DC 12V terminals (SPT-M104CE/M102CE), GND (SPT-M104CE) |

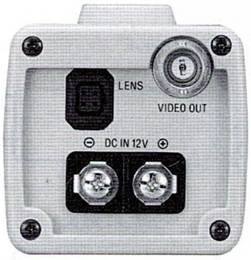
SPT-M108CE



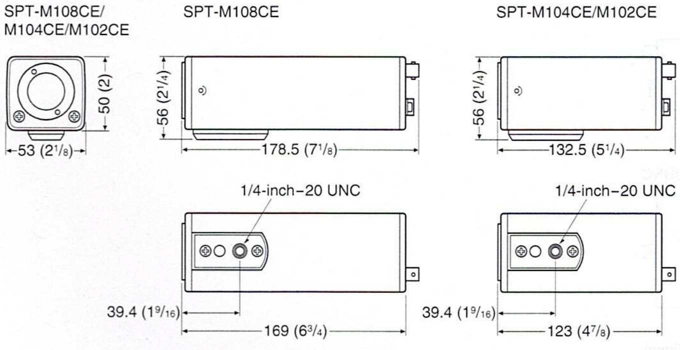
SPT-M104CE



SPT-M102CE



### Dimensions



Unit: mm (inch)

## SSC-M370CE

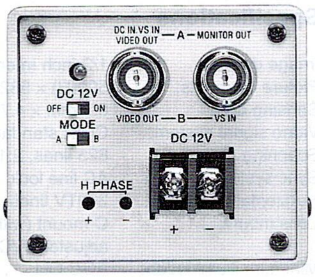
### CCD monochrome video camera

•Especially designed for surveillance applications •High density 1/2-inch IT Hyper HAD CCD offers extremely high resolution of 570TV lines and high sensitivity with a minimum illumination of 0.3 lx (F1.2) •Excellent signal-to-noise ratio of 50dB •CCD IRIS function allows use of inexpensive manual iris lenses •Variable speed electronic shutter •Accepts C-mount lenses •External synchronization with VS •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12V DC power supply can also be used (Mode B)

Hi Resolution
SONY
CCD-IRIS
BACK FOCUS
LENS
BLACK AND WHITE VIDEO CAMERA SSC-M370CE

Lens is optional

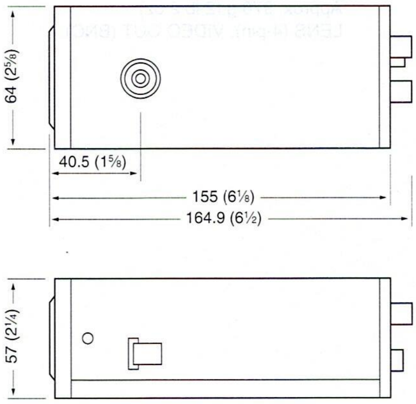
| | | |
|---|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>Operating instruction manual | |
| Optional accessories: | Camera adaptor | YS-W150P, YS-W250P |
| | Manual iris lens | VCL-S03XM (3.6 mm, F1.6)<br>VCL-S06XM (6.0 mm, F1.2)<br>VCL-S12XM (12 mm, F1.2) |
| | Auto iris lens | VCL-S03XEA (3.6 mm, F1.6)<br>VCL-S06XEA (6.0 mm, F1.2)<br>VCL-S12XEA (12 mm, F1.2) |



### Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 752 (H) × 582 (V) |
| Sensing area: | 6.3 mm × 4.7 mm |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal or external with VS |
| Horizontal resolution: | 570TV lines |
| Lens mount: | C-mount (Back focus adjustable) |
| Minimum illumination: | AGC ON<br>0.3 lx at F1.2 |
| Automatic Gain Control: | ON/OFF switchable |
| Electronic shutter: | 1/50, 1/120(FL), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) |
| Phase control: | H-phase control |
| CCD IRIS control: | ON/OFF switchable |
| Signal-to-noise ratio: | 50dB (AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F) |
| Storage temperature: | –40 to 60°C (–40 to 140°F) |
| Power requirements: | DC 24V from YS-W150P/W250P or DC 12V from DC 12V power supply |
| Power consumption: | 4.0W supplied from YS-W150P/W250P or 2.8W at DC 12V |
| Maximum cable length: | 300m using RG-59B/U (3C-2V)<br>500m using RG-6A/U (5C-2V)<br>600m using RG-11A/U (7C-2V) |
| Mass: | Approx. 660 g (1 lb 7 oz) |
| Connectors: | DC 12V terminals, LENS (4-pin)<br>Mode A (Triple multiplexing operation):<br>DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC)<br>Mode B (DC 12V operation):<br>VIDEO OUT (BNC), VS IN (BNC) |

Dimensions



Unit: mm (inch)

## SSC-M257CE

### CCD monochrome video camera

•Especially designed for surveillance applications •1/2-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 0.3 lx (F1.2) •Excellent signal-to-noise ratio of 48dB •CCD IRIS function allows use of inexpensive manual lenses •Accepts C or CS-mount lenses •AC Line Lock for external synchronization • AC 220V power operation

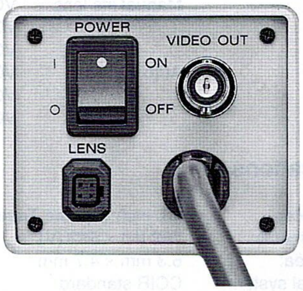
| | | |
|---|---|---|
| Supplied accessories: | Lens connector<br>Lens mount cap<br>C-mount adaptor<br>Operating instruction manual | |
| Optional accessories: | Manual iris lens | VCL-S03XM (3.6 mm, F1.6)<br>VCL-S06XM (6.0 mm, F1.2)<br>VCL-S12XM (12 mm, F1.2) |
| | Auto iris lens | VCL-S03XEA (3.6 mm, F1.6)<br>VCL-S06XEA (6.0 mm, F1.2)<br>VCL-S12XEA (12 mm, F1.2) |

SONY
CCD
BACK FOCUS
BLACK AND WHITE VIDEO CAMERA SSC-M257CE

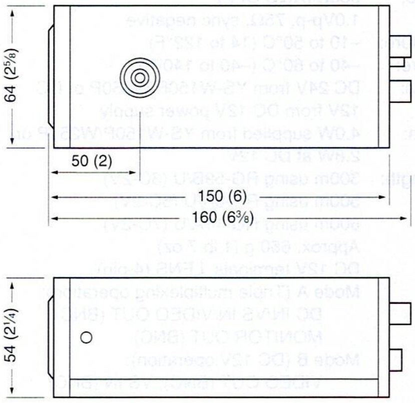
Lens is optional

### Specifications

| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 500(H) × 582(V) |
| Sensing area: | 6.3 mm × 4.7 mm |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | AC line lock |
| Horizontal resolution: | 380TV lines |
| Lens mount: | C-mount (with the supplied adaptor, Back focus adjustable)/CS-mount (Back focus adjustable) |
| Minimum illumination: | AGC ON<br>0.3 lx at F1.2 |
| Automatic Gain Control: | Always AGC ON |
| Phase control: | V-phase control<br>(±90° adjustable by inside volume) |
| CCD IRIS control: | 8 steps, ON/OFF switchable by internal switch |
| Signal-to-noise ratio: | 48dB (AGC OFF) |
| Video out: | 1.0Vp-p, 75Ω, sync negative |
| Operating temperature: | –10 to 50°C (14 to 122°F) |
| Storage temperature: | –40 to 60°C (–40 to 140°F) |
| Power requirements: | AC 220V |
| Power consumption: | 4.5W |
| Mass: | Approx. 970 g (2 lb 2 oz) |
| Connectors: | LENS (4-pin), VIDEO OUT (BNC) |



**Dimensions**

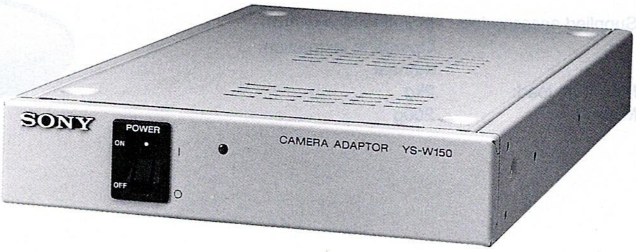


Unit: mm (inch)

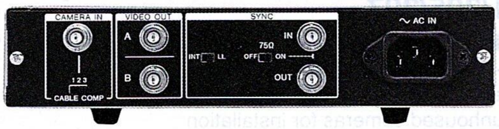
## YS-W150P

### AC adaptor for SSC-DC50P/DC30P/C370P/M370CE

- Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable
- Internal or external synchronization with VS or AC line lock
- Extends the cable length up to 600 metres by using 7C-2V coaxial cable


SONY
POWER
ON
OFF
CAMERA ADAPTOR YS-W150

| | |
|---|---|
| Connectors: | CAMERA IN (BNC)<br>VIDEO OUT (BNC × 2)<br>SYNC IN/OUT (BNC, loop-through, 75Ω ON/OFF) |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 15W |
| Operating temperature: | –10°C to 50°C (14°F to 122°F) |
| Maximum cable length: | 300 m using RG-59B/U (3C-2V)<br>500 m using RG-6A/U (5C-2V)<br>600 m using RG-11A/U (7C-2V) |
| Dimensions: | 212(W) × 52(H) × 330(D) mm<br>(8 3/8 × 2 1/8 × 13 inches) |
| Mass: | 1.9 kg (4 lb 3 oz) |


CAMERA IN
VIDEO OUT
A
B
SYNC
75Ω
IN
OUT
INT
LL
OFF
ON
1 2 3
CABLE COMP
AC IN

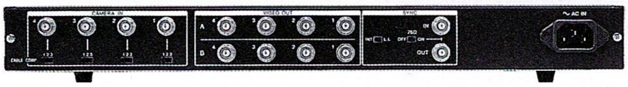
## YS-W250P

### AC adaptor for SSC-DC50P/DC30P/C370P/M370CE, DXC-107AP

- Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable
- Up to four cameras can be connected
- Internal or external synchronization with VS or AC line lock
- Extends the cable length up to 600 metres by using 7C-2V coaxial cable (SSC series camera) or 300 metres with 5C-2V coaxial cable (DXC-107AP)

SONY
POWER
CAMERA ADAPTOR YS-W250

| | |
|---|---|
| Connectors: | CAMERA IN 1 to 4 (BNC × 4)<br>VIDEO OUT A: 1 to 4 (BNC × 4)<br>VIDEO OUT B: 1 to 4 (BNC × 4)<br>SYNC IN/OUT (BNC, loop-through, 75Ω ON/OFF) |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 48W |
| Operating temperature: | –10°C to 50°C (14°F to 122°F) |
| Maximum cable length: | 300m using RG-59B/U (3C-2V)<br>500m using RG-6A/U (5C-2V)<br>600m using RG-11A/U (7C-2V) |
| Dimensions: | 424 (W) × 52(H) × 330(D) mm<br>(16 3/4 × 2 1/8 × 13 inches) |
| Mass: | 3.6 kg (7 lb 15 oz) |


CAMERA IN
VIDEO OUT
SYNC
AC IN

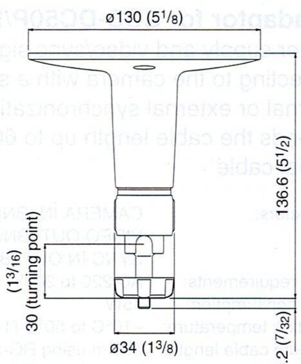
## YT-B21

### Mounting bracket

- For indoor use

| | |
|---|---|
| Supplied accessories: | Mounting screw (×4)<br>Operating instruction manual |
| Maximum load: | 2kg |
| Mass: | 200g |

Dimensions:



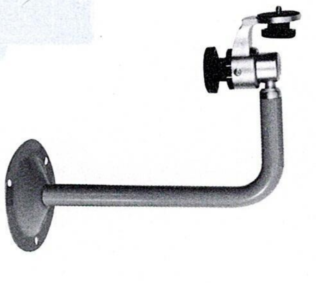
Unit: mm (inch)

## T-301/305/307

### Mounting bracket

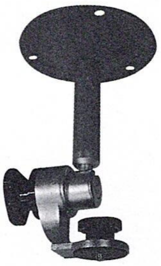
- T-301 - Suitable for mounting housed or unhoused cameras, T-305/307 - Only accept unhoused cameras for installation

| | | |
|---|---|---|
| Maximum load: | 10kg | |
| Length: | T-301: | 260mm + 150mm |
| | T-305: | Min.275mm/Max.405mm |
| | T-307: | 160mm |
| Mass: | T-301/305: | 0.7kg |
| | T-307: | 0.6kg |



T-301

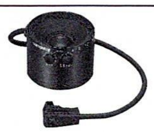
T-305



T-307

## Lenses for 1/2-inch C-mount cameras

### 1) Auto-iris Type

| (Video servo type) |  | | |
|---|---|---|---|
| Models | **VCL-S03XEA** | **VCL-S06XEA** | **VCL-S12XEA** |
| Mount | C | C | C |
| Focal length | 3.6 mm | 6.0 mm | 12 mm |
| Iris control | Auto | Auto | Auto |
| Maximum aperture ratio | 1 : 1.6 | 1 : 1.2 | 1 : 1.2 |
| Filter size | — | M43 × 0.75 mm | M43 × 0.75 mm |
| Mass | 88 g (3.1 oz) | 128 g (4.5 oz) | 126 g (4.4 oz) |
| Dimensions | ø45(dia.) × 32.9(L) mm<br>(1$^{13}/_{16}$ × 1$^{5}/_{16}$ inches) | ø45.5(dia.) × 48.5(L) mm<br>(1$^{13}/_{16}$ × 1$^{15}/_{16}$ inches) | ø45.5(dia.) × 48.5(L) mm<br>(1$^{13}/_{16}$ × 1$^{15}/_{16}$ inches) |
| Supply voltage | DC 8 to 16V | DC 8 to 16V | DC 8 to 16V |

### 2) Manual-iris Type

| | | | |
|---|---|---|---|
| Models | **VCL-S03XM** | **VCL-S06XM** | **VCL-S12XM** |
| Mount | C | C | C |
| Focal length | 3.6 mm | 6.0 mm | 12 mm |
| Iris control | Manual | Manual | Manual |
| Maximum aperture ratio | 1 : 1.6 | 1 : 1.2 | 1 : 1.2 |
| Filter size | M35.5 × 0.5 mm | M35.5 × 0.5 mm | M35.5 × 0.5 mm |
| Mass | 66 g (2.3 oz) | 74 g (2.6 oz) | 60 g (2.1 oz) |
| Dimensions | ø38(dia.) × 28.6(L) mm<br>(1$^{1}/_{2}$ × 1$^{3}/_{16}$ inches) | ø38(dia.) × 36.4(L) mm<br>(1$^{1}/_{2}$ × 1$^{7}/_{16}$ inches) | ø38(dia.) × 30.8(L) mm<br>(1$^{1}/_{2}$ × 1$^{1}/_{4}$ inches) |

## Zoom lens for 1/2-inch C-mount cameras

| (Auto-iris, video servo type) | | |
|---|---|---|
| Models | **PH10X8.5RGE** | **PH15X8RGE** |
| Mount | C | C |
| Focal length | 8.5 to 85 mm | 8.5 to 120 mm |
| Iris control | Auto | Auto |
| Maximum aperture ratio | 1 : 1.8 | 1 : 1.8 |
| Maximum object distance | 1.2 m | 1.2 m |
| Filter size | M52 × 0.75 mm | M58 × 0.75 mm |
| Mass | 450 g (15.9 oz) | 550 g (19.3 oz) |
| Dimensions (dia. × H × L) | 79 × 70 × 105 mm<br>(3$^{1}/_{6}$ × 2$^{7}/_{8}$ × 4$^{1}/_{4}$ inches) | 81.5 × 70 × 132 mm<br>(3$^{1}/_{4}$ × 2$^{7}/_{8}$ × 5$^{1}/_{4}$ inches) |
| Supply voltage | DC 8.5 to 16V | DC 8.5 to 16V |

## Aspherical auto-iris lens for 1/2-inch CS-mount cameras

| (DC servo type) | |
|---|---|
| Model | **VCL-3ADXEA** |
| Mount | CS |
| Focal length | 3.8 mm |
| Iris control | Auto |
| Maximum aperture ratio | 1 : 0.8 |
| Maximum object distance | 0.15m |
| Filter size | M43 × 0.75 mm |
| Mass | 150 g (5.3 oz) |
| Dimensions (dia. × H × L) | ø45.0 × 56.8 × 52.5 mm<br>(1$^{13}/_{16}$ × 2$^{1}/_{4}$ × 2$^{1}/_{8}$ inches) |
| Cable length | 90 mm (3 $^{5}/_{8}$ inch) |

## Lenses for 1/3-inch CS-mount camera

### 1) Auto-iris Type

(DC servo type/
Non-EE
amplifier type/
Non-ALC type)

| | | | |
|---|---|---|---|
| | | | |
| Models | **VCL-3V8WEAP** | **VCL-S02WEAP** | **VCL-S04WEAP** |
| Mount | CS | CS | CS |
| Focal length | 3.5 to 8.0 mm | 2.8 mm | 4.0 mm |
| Iris control | Auto | Auto | Auto |
| Maximum aperture ratio | 1 : 1.8 | 1 : 1.3 | 1 : 1.4 |
| Maximum object distance | 0.2 m | 0.2 m | 0.2 m |
| Filter size | M30.5 × 0.5 mm | M30.5 × 0.5 mm | M30.5 × 0.5 mm |
| Mass | 70 g (2 oz) | 41 g (1.4 oz) | 75 g (3 oz) |
| Dimensions (dia. × H × L) | ø42.0 × 52.0 × 47.0 mm<br>(1$^{11}/_{16}$ × 2$^{1}/_{8}$ × 1$^{7}/_{8}$ inches) | ø32.0 × 39.8 × 33.0 mm<br>(1$^{5}/_{16}$ × 1$^{5}/_{8}$ × 1$^{5}/_{16}$ inches) | ø42.0 × 52.0 × 47.0 mm<br>(1$^{11}/_{16}$ × 2$^{1}/_{8}$ × 1$^{7}/_{8}$ inches) |
| Cable length | 260 mm (10$^{1}/_{4}$ inch) | 310 mm (12$^{1}/_{4}$ inch) | 260 mm (10$^{1}/_{4}$ inch) |

| | | |
|---|---|---|
| | | |
| Models | **TG0412FCS-3** | **TG0812FCS-3** |
| Mount | CS | CS |
| Focal length | 4.0 mm | 8.0 mm |
| Iris control | Auto | Auto |
| Maximum aperture ratio | 1 : 1.2 | 1 : 1.2 |
| Filter size | M30.5 × 0.5 mm | M30.5 × 0.5 mm |
| Mass | 38 g (1.3 oz) | 39 g (1.4 oz) |
| Dimensions (dia. × H × L) | ø32.0 × 39.8 × 33.0 mm<br>(1$^{5}/_{16}$ × 1$^{5}/_{8}$ × 1$^{5}/_{16}$ inches) | ø32.0 × 39.8 × 33.0 mm<br>(1$^{5}/_{16}$ × 1$^{5}/_{8}$ × 1$^{5}/_{16}$ inches) |
| Note | By computar | By computar |

### 2) Manual-iris Type

| | | | |
|---|---|---|---|
| | | | |
| Models | **T2616FICS-3** | **T0412FICS-3** | **T0812FICS-3** |
| Mount | CS | CS | CS |
| Focal length | 2.6 mm | 4.0 mm | 8.0 mm |
| Iris control | Manual | Manual | Manual |
| Maximum aperture ratio | 1 : 1.6 | 1 : 1.2 | 1 : 1.2 |
| Filter size | – | M30.5 × 0.5 mm | M30.5 × 0.5 mm |
| Mass | 45g (1.6 oz) | 68g (2.4 oz) | 37g (1.3 oz) |
| Dimensions (dia. × L) | ø34.5 × 34.7 mm<br>(1$^{3}/_{8}$ × 1$^{3}/_{8}$ inches) | ø32.0 × 33.0 mm<br>(1$^{5}/_{16}$ × 1$^{5}/_{16}$ inches) | ø32.0 × 33.0 mm<br>(1$^{5}/_{16}$ × 1$^{5}/_{16}$ inches) |
| Note | By computar | By computar | By computar |

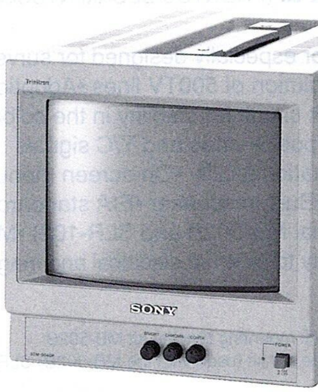
### 3) Zoom Lens

| | | |
|---|---|---|
| | | |
| Models | **T10X6.5RG CS** | **T15X6RG CS** |
| Mount | CS | C |
| Focal length | 6.5 to 65 mm | 6 to 90 mm |
| Iris control | Auto | Auto |
| Maximum aperture ratio | 1 : 1.4 | 1 : 1.6 |
| Filter size | M52 × 0.75 mm | M58 × 0.75 mm |
| Mass | 450 g (15.9 oz) | 550 g (19.3 oz) |
| Dimensions (dia. × H × L) | 79 × 70 × 108 mm<br>(3$^{1}/_{4}$ × 2$^{7}/_{8}$ × 4$^{3}/_{8}$ inches) | 81.5 × 70 × 118 mm<br>(3$^{1}/_{4}$ × 2$^{7}/_{8}$ × 4$^{3}/_{4}$ inches) |
| Note | Video servo auto iris | DC servo auto iris |

## 9" SSM-9040P

### Colour monitor

•PAL standard •Trinitron colour monitor especially designed for surveillance applications •Adoption of beam current feedback circuit for high black level stability •Automatic 75Ω termination facility •Front controls: Power, Brightness, Chroma, Contrast •EIA standard 19-inch rack mountable (with optional MB-507 mounting bracket) •Metal cabinet for high immunity to external electrical and magnetic interference



| | |
|---|---|
| Supplied accessory: | Operating instruction manual |
| Optional accessories: | Rack mounting bracket MB-507<br>Blanking panel MB-509 |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields |
| Colour system: | PAL |
| CRT Type: | 22 cm (9-inch) Trinitron Tube, visible picture size 19.7 cm (8-inch) measured diagonally, 70 degree deflection (AG pitch 0.5 mm) |
| Resolution: | 250TV lines at centre |
| Frequency response: | 6.0MHz ($^{+1.5dB}_{-3.0dB}$) |
| Aperture correction: | –4.0dB to +6.0dB (at 3.0MHz) |
| Sync system: | AFC time constant 1.0ms |
| Normal scan: | 6% overscan |
| H-linearity: | Less than 7.0% (Typical) |
| V-linearity: | Less than 7.0% (Typical) |
| Convergence: | Central: 0.4 mm (Typical)<br>Peripheral: 0.5 mm (Typical) |
| Raster size stability: | H: 1.0%<br>V: 1.5% |
| HV-regulation: | 3.0% (Cut off to High light) |
| Colour temperature: | 6500K |
| Operating temperature: | 0 to 35°C (32 to 95°F ) |
| Storage temperature: | –10 to 40°C (14 to 104°F ) |
| Humidity: | 0 to 90% |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 39W |
| Video input: | BNC, 1Vp-p, sync negative |
| Video output: | Loop-through BNC, automatic 75Ω termination* |
| Dimensions: | 217(W) × 217(H) × 352.5(D) mm<br>(8⁵/₈ × 8⁵/₈ × 14 inches) |
| Mass: | Approx. 7.8 kg (17 lb 3 oz) |

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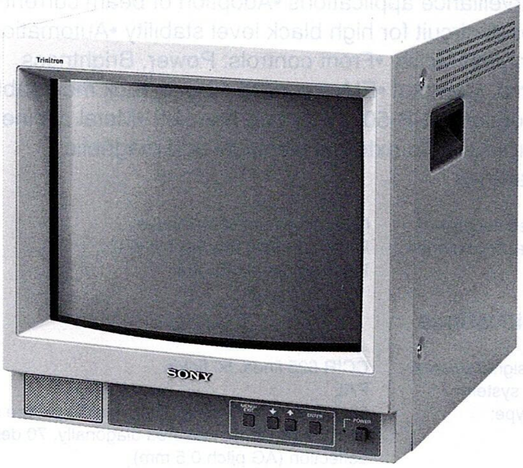
*75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 14" SSM-14N1E (PAL/NTSC/SECAM/NTSC$_{4.43}$)

### Colour monitor

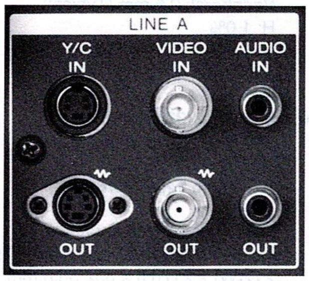
•Trinitron colour monitor especially designed for surveillance applications •High resolution of 500TV lines •Adoption of beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •Automatic 75Ω termination facility •On-screen menu for adjustment/operation •Built-in speaker •EIA standard rack mountable (with optional MB-502B and SLR-102) •Metal cabinet for high immunity to external electrical and magnetic interference



| | |
|---|---|
| Optional accessories: | Rack mounting bracket kit MB-502B<br>Slide rail kit (used with the MB-502B) SLR-102 |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$*1 |
| Picture tube: | 37.1 cm (14-inch), HR Trinitron tube, visible picture size 33.2 cm(min.) (13-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 80W |
| Dimensions: | 346 (W) × 340 (H) × 414 (D) mm<br>($13^{5}/_{8}$ × $13^{3}/_{8}$ × $16^{5}/_{16}$ inches) |
| Mass: | 15 kg (33 lb 1oz) |
| VIDEO | |
| LINE*2 | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination*3<br>Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination*3<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination*3<br>NTSC: 0.286Vp-p, Automatic 75Ω termination*3 |
| AUDIO | |
| LINE | Loop-through Phono<br>–5dBu, high impedance |



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*1 The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 20" SSM-20N1E (PAL/NTSC/SECAM/NTSC$_{4.43}$)

### Colour monitor

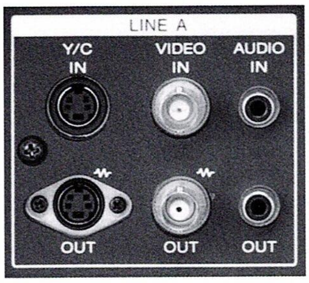
•Trinitron colour monitor especially designed for surveillance applications •High resolution of 500TV lines •Adoption of beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •Automatic 75Ω termination facility •On-screen menu for adjustment/operation •Built-in speaker •EIA standard rack mountable (with optional SLR-103A) •Metal cabinet for high immunity to external electrical and magnetic interference

Trinitron
SONY

Optional accessory: Slide rail kit SLR-103A

### Specifications

| | |
|---|---|
| Video signal system: | CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done) |
| Colour system: | PAL/NTSC/SECAM/NTSC$_{4.43}$[*1] |
| Picture tube: | 53 cm (20-inch), HR Trinitron tube, visible picture size 48.0 cm (min.) (19-inch) measured diagonally, 90° deflection, EBU phosphors |
| Horizontal resolution: | 500TV lines at centre |
| Audio power output: | Monaural, 0.8W with built-in speaker |
| Power requirements: | AC 100 to 240V, 50/60Hz |
| Power consumption: | 105W |
| Dimensions: | 449 (W) x 441 (H) x 502 (D) mm<br>($17^{11}/_{16}$ x $17^{3}/_{8}$ x $19^{3}/_{4}$ inches) |
| Mass: | 28 kg (61 lb 11 oz) |
| VIDEO | |
| LINE[*2] | Loop-through BNC<br>1.0Vp-p, sync negative,<br>Automatic 75Ω termination[*3]<br>Loop-through Mini DIN 4-pin<br>Y(luminance):<br>1.0Vp-p, sync negative, Automatic 75Ω termination[*3]<br>C(chrominance):<br>PAL: 0.3Vp-p, Automatic 75Ω termination[*3]<br>NTSC: 0.286Vp-p, Automatic 75Ω termination[*3] |
| AUDIO | |
| LINE | Loop-through Phono<br>–5dBu, high impedance |



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[*1] The NTSC$_{4.43}$ system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43MHz.

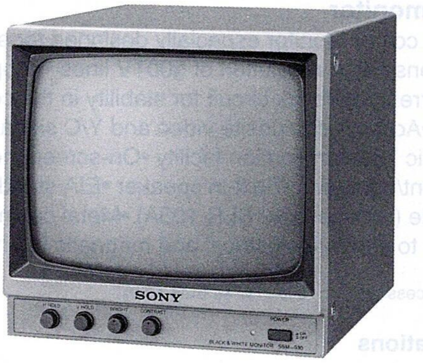
[*2] The Y/C input has priority over the Composite video input.

[*3] 75Ω termination is automatically set to OFF when connection is made to the OUT connector.

## 9" SSM-930CE

### Monochrome monitor

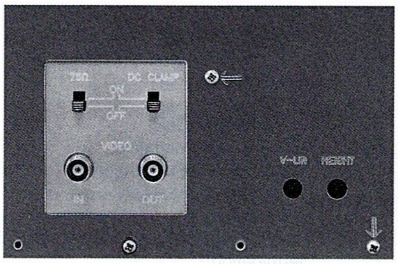
•Especially designed for surveillance applications •CCIR standard •9-inch CRT size •Excellent picture quality with more than 750 TV lines horizontal resolution •Loop-through video input with switchable 75Ω termination •DC clamp switch provides a stable reference for the black level •19-inch EIA standard rack mountable for dual monitor configuration •Front controls: Power H-hold, V-hold, contrast and brightness •High immunity to external electrical and magnetic interference



Supplied accessory: Operating instruction manual

### Specifications

| | |
|---|---|
| Video signal system: | CCIR standard |
| Picture tube: | 9-inch B/W measured diagonally, 90° deflection |
| Video input: | Impedance 75Ω/high switchable<br>Level 0.5 to 2.0Vp-p, sync negative, BNC-type |
| Video output: | Impedance more than 10kΩ, loop-through, BNC-type |
| Horizontal resolution: | More than 750TV lines (at centre) |
| Power requirements: | AC 220V, 50/60Hz |
| Power consumption: | 30W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –10 to 65°C (14 to 149°F) |
| Dimensions: | 220(W) × 219(H) × 252.8(D) mm<br>(8³/₄ × 8⁵/₈ × 10 inches) |
| Mass: | 5.8 kg (13 lb) |

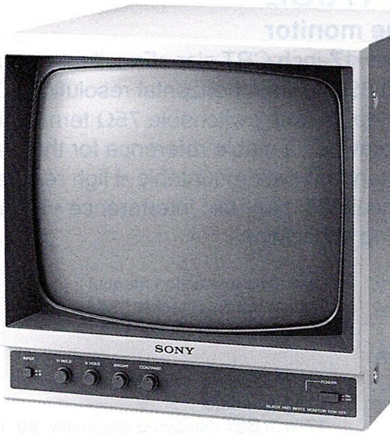


## 12" SSM-125CE

### Monochrome monitor

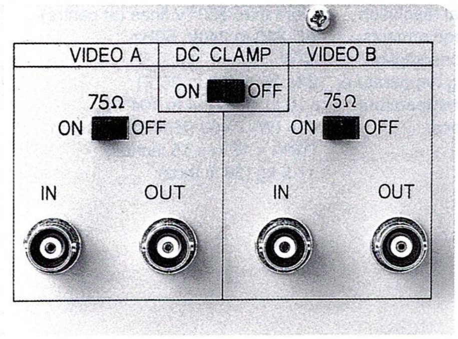
•Especially designed for surveillance applications •CCIR standard •12-inch CRT size •Excellent picture quality with more than 750TV lines horizontal resolution •Dual loop-through video inputs, with switchable 75Ω termination •Front controls: Power, INPUT select, H-hold, V-hold, contrast and brightness •High immunity to external electrical and magnetic interference

Supplied accessory: Operating instruction manual



### Specifications

| | |
|---|---|
| Video signal system: | CCIR standard |
| Picture tube: | 12-inch B/W measured diagonally, 90° deflection |
| Video input: | Impedance 75Ω/high switchable<br>Level 0.5 to 2.0Vp-p, sync negative,<br>BNC-type (×2) |
| Video output: | Impedance more than 10kb, loop-through,<br>BNC-type (×2) |
| Horizontal resolution: | More than 750 TV lines (at centre) |
| Power requirements: | AC 230V, 50/60Hz |
| Power consumption | 30W |
| Operating temperature: | 0 to 35°C (32 to 95°F) |
| Storage temperature: | –10 to 40°C (14 to 104°F) |
| Dimensions: | 296(W) × 303(H) × 300.5(D) mm<br>(11¾ × 12 × 11⅞ inches) |
| Mass: | 9.2 kg (20 lb 5 oz) |



## 17" SSM-175CE

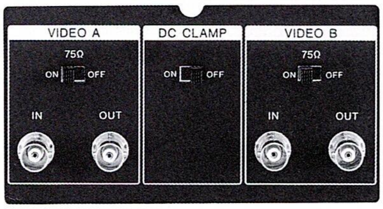
### Monochrome monitor

•CCIR standard •17-inch CRT size •Excellent picture quality with more than 850TV lines horizontal resolution •Dual loop-through video inputs, with switchable 75Ω termination •DC clamp switch provides a stable reference for the black level •19-inch EIA standard rack mountable •High resistance to external electrical and magnetic interference •Suitable for many monitoring applications

| | |
|---|---|
| Supplied accessory: | Operating instruction manual |
| Optional accessory: | Rack mounting bracket RMM-171 |

### Specifications

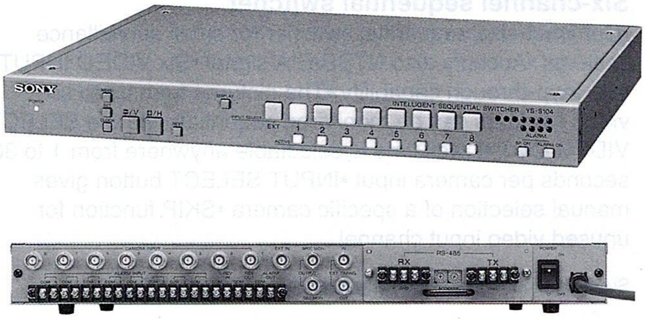
| | |
|---|---|
| Video signal system: | CCIR standard |
| Picture tube: | 17-inch B/W measured diagonally, 90° deflection |
| Video input: | BNC (×2), level 0.5 to 2.0Vp-p, sync negative, 75Ω/high impedance switchable with loop-through output |
| Horizontal resolution | More than 850TV lines (at centre) |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | 37W |
| Operating temperature: | 0 to 35°C (32 to 95°F) |
| Storage temperature: | –10 to 40°C (14 to 104°F) |
| Dimensions: | 424 (W) × 409 (H) × 380 (D) mm<br>(16¾ × 16⅛ × 15 inches) |
| Mass: | 17.5 kg (38 lb 9 oz) |



## YS-S104

### Intelligent sequential switcher

•Eight video camera inputs and one external input •Sequential Monitor OUTPUT allows sequential monitoring of up to eight cameras •Dwell time (displayed time) can be set for each video camera at eight different times: 1, 2, 3, 5, 10, 20, 30, 60 s. •Spot Monitor OUTPUT gives manual selection of a specific camera •Built-in Date/Time/Character Generator for video camera identification •Eight ALARM INPUTs, each corresponding to a CAMERA INPUT, for automatic display of the picture at the relevant location •Alarm time can be set in 7 steps: 5, 10, 20, 30 seconds, 1, 2, 5 minutes •Alarm memory recall provides an on-screen display of up to 108 alarm events including camera number, date and time information •Cascading up to four YS-S104's via an RS-485 communication port is possible for monitoring pictures from up to 32 cameras •External control up to 255 YS-S104's from a central computer is possible via RS-485 communication port



| | |
|---|---|
| Supplied accessories: | Rack mount bracket (for 19-inch EIA standard rack) (1 set)<br>Operating instruction manual |

### Specifications

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 110mA |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Dimensions: | 424(W) × 51.6(H) × 355(D) mm<br>(16 3/4 × 2 1/8 × 14 inches) |
| Mass: | Approx. 4.1 kg (9 lb 1 oz) |

**Input signals**

| | |
|---|---|
| CAMERA INPUT 1 to 8: | BNC type, PAL colour, 1.0Vp-p, 75Ω, unbalanced, sync negative |
| EXT (External) IN: | BNC type, PAL colour, 1.0Vp-p, 75Ω, unbalanced, sync negative |
| ALARM INPUT 1 to 8: | M3 screw type, alarm activated when connected to COM (Connection resistance less than 600Ω)<br>Max. DC voltage on input, 5V |
| REV (Recovery) IN: | M3 screw type, DC 5V, impedance 2.2kΩ |
| EXT (External) TIMING IN: | BNC type, open circuit voltage DC 5V, impedance 5.6kΩ |

**Output signals**

| | |
|---|---|
| SPOT MON (Monitor) OUTPUT: | BNC type, impedance 75Ω |
| SEQ MON (Sequential monitor) OUTPUT: | BNC type, impedance 75Ω |
| ALARM OUT: | M3 screw type, open collector output, contact rating DC 5V/100mA resistive load |
| RESET OUT: | M3 screw type, DC 4V, impedance 1kΩ |
| EXT (External) TIMING OUT: | BNC connector, open collector output, contact rating DC 5V/100mA resistive load |

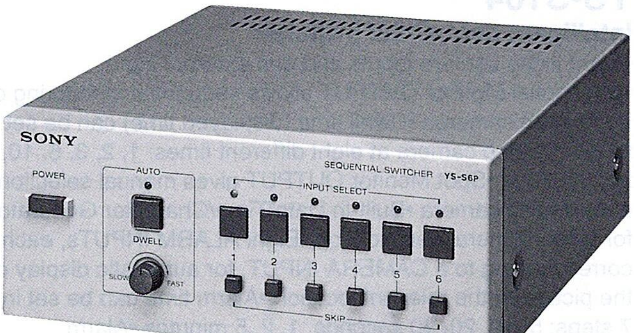
**Others**

| | |
|---|---|
| Interface unit: | RS-485 interface |

# YS-S6

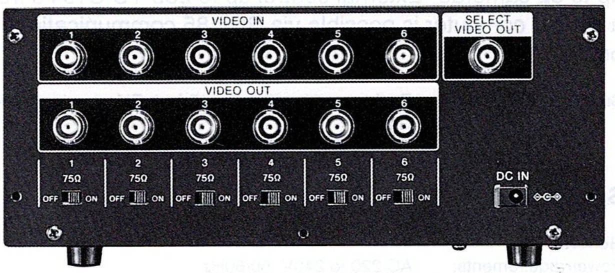
## Six-channel sequential switcher

•Compact-size sequential switcher for small surveillance systems •Accepts also NTSC/EIA signal •Six VIDEO INPUTs with loop-through capability •The pictures from up to six video cameras can be monitored seqentially via the SELECT VIDEO OUT •Dwell time is selectable anywhere from 1 to 30 seconds per camera input •INPUT SELECT button gives manual selection of a specific camera •SKIP function for unused video input channel


SONY
POWER
AUTO
DWELL
SLOW
FAST
SEQUENTIAL SWITCHER YS-S6P
INPUT SELECT
1
2
3
4
5
6
SKIP

Supplied accessory: Operating instruction manual

Note: AC adaptor is an option.


VIDEO IN
1
2
3
4
5
6
SELECT VIDEO OUT
VIDEO OUT
75Ω
OFF
ON
DC IN

## Specifications

### General

| | |
|---|---|
| Power requirements: | DC 9V |
| Power consumption: | Approx. 1W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | –20 to 60°C (–4 to 140°F) |
| Dimensions: | 220(W) × 96(H) × × 265.5(D) mm<br>(8 3/4 × 3 7/8 × 10 1/2 inches) |
| Mass: | Approx. 2.1 kg (4 lb 10 oz) |

### Inputs

| | |
|---|---|
| VIDEO INPUT 1 to 6: | BNC type, 1.0Vp-p, 75Ω, unbalanced, sync negative |
| DC IN: | DC jack type,<br>DC 9V (DC 7V to 15V is permissible) |

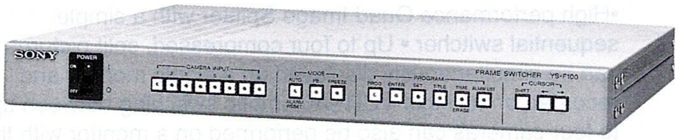
### Outputs

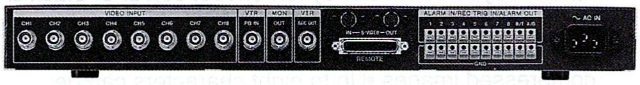
| | |
|---|---|
| VIDEO OUTPUT 1 to 6: | BNC type, loop-through output of VIDEO INPUT, 75Ω termination ON/OFF switchable |
| SELECT VIDEO OUT: | BNC type, 1.0Vp-p, 75Ω, unbalanced, sync negative |

## YS-F100P

### Frame switcher

•Up to eight video inputs •Either asynchronous or synchronous, colour or monochrome cameras can be connected •Switching between connected cameras by a frame (1/25s) for precise monitoring of multiple surveillance points •Auto sequential monitoring via MON OUT connector •CAMERA INPUT select button allows independent playback of specific camera image •Freeze picture function •Long time recording with Time Lapse VCR •Y/C input and output connectors allow interconnecting with S-VHS VCR •Eight ALARM INPUTs, each corresponding to a CAMERA INPUT •Programable alarm recording type •Alarm monitor function automatically provides independent monitoring of channels on which alarms occur •Alarm hold time (duration of the alarm) can be set up to 30 min. by the second •Alarm switching time can be set from 0 to 30 sec. for multiple alarm inputs •Alarm memory recall provides an on-screen display of up to 100 alarm events including camera number, date and time information •Easy mode setting and checking on-screen display •Video input loss detection •Character superimpose function •Remote control capability via the D-sub 25-pin Remote Control Port in accordance with RS-232C standard





| | |
|---|---|
| Supplied accessories: | Rack mounting bracket (for EIA standard rack) (1 set)<br>Screw (×8)<br>AC power cord<br>Operating instruction manual |

### Specifications

**General**

| | |
|---|---|
| Video signal system: | PAL standard |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | Less than 15W |
| Operating temperature: | 0 to 40˚C (32 to 104˚F) |
| Storage temperature: | –20 to 60˚C (–4 to 140˚F) |
| Dimensions: | 430(W) × 44(H) × × 350(D) mm<br>(17 × $1^{3}/_{4}$ × $13^{7}/_{8}$ inches) |
| Mass: | Approx. 4.0 kg (9 lb 4 oz) |

**Video inputs**

| | |
|---|---|
| Camera input 1 to 8: | BNC type, VBS, 1.0Vp-p, 75Ω, RS-170, RS-107A |
| VTR input: | BNC type, VBS, 1.0Vp-p, 75Ω |
| S-VHS Y/C input: | Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω |

**Video outputs**

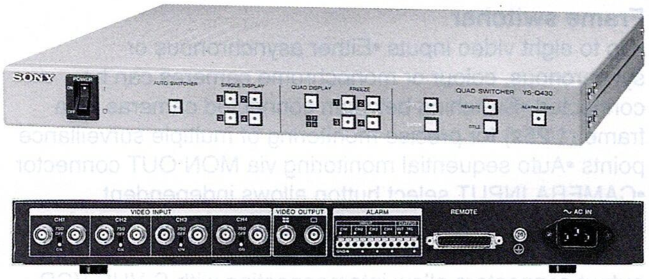
| | |
|---|---|
| Monitor output: | BNC type, VBS, 1.0Vp-p, 75Ω |
| VTR output: | BNC type, VBS, 1.0Vp-p, 75Ω |
| S-VHS Y/C output: | Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω |

**Others**

| | |
|---|---|
| Remote connector: | D-sub 25-pin<br>RS-232C<br>CH1-CH8, AUTO, P.B., FREEZE<br>TTL "L" level or MAKE |
| Alarm inputs: | External alarm 8 inputs<br>TTL "L" level or MAKE |
| Alarm output: | 1 logic output: TTL "L" level |
| Alarm hold time: | Selectable from 1s to 30 min |
| Auto sequential switching time: | Selectable from 0 to 30s |
| Alarm switching time: | Selectable from 0 to 30s |
| Video memory: | 256K × 8bits |

## YS-Q430P

### Quad switcher



•High performance Quad Image Splitter with a simple sequential switcher • Up to four compressed, split pictures can be simultaneously displayed on a single monitor and recorded on a single VCR •Automatic switching between up to four cameras can also be performed on a monitor with the selection of dwell time: 1, 2, 3, 4, 5, 6, 8 or 10 seconds •Either asynchronous or synchronous, colour or black & white cameras can be connected •8-bit signal processing and four field memories provide high picture quality compressed images •Up to eight characters can be superimposed onto each of the four compressed pictures •The built-in date and time generator allows time and date information to be displayed •Freeze picture function (Quad mode only) •Alarm function •Remote control capability via the D-sub 25-pin Remote Control Port in accordance with RS-232C standard

| | |
|---|---|
| Supplied accessories: | Rack mounting bracket (for EIA standard rack)<br>AC power cord<br>Operating instruction manual |

### Specifications

| | |
|---|---|
| Video signal system: | CCIR/PAL standard |
| Power requirements: | AC 220 to 240V, 50Hz |
| Power consumption: | Less than 18W |
| Operating temperature: | 0 to 40°C (32 to 104°F) |
| Storage temperature: | -20 to 60°C (-4 to 140°F) |
| Dimensions: | 430(W) × 44(H) × 350(D) mm<br>(17 × 1$^{3}/_{4}$ × 12$^{7}/_{8}$ inches)<br>(without projecting parts and controls) |
| Mass: | Approx. 4.3 kg (9 lb 4 oz) |
| **Input signals** | |
| Video input: | VIDEO INPUT CH1 to CH4 (BNC type) × 4,<br>1.0Vp-p, 75Ω, Loop-through (BNC type) × 4 |
| Video output: | VIDEO OUT (BNC type) × 1<br>Quadrant-picture image signal<br>1.0Vp-p, 75Ω<br>Outputs quadrant-picture images only<br>VIDEO OUT (BNC type) × 1<br>Sequential signal<br>1.0Vp-p, 75Ω<br>Outputs quadrant-picture images or the video signal from the selected input |
| Remote connector: | REMOTE (D-sub 25-pin connecotor provides RS-232C interface) |
| Alarm input: | ALARM IN terminal × 4<br>TTL "L" level or MAKE |
| Alarm output: | ALARM OUT terminal × 1<br>TTL "L" level<br>TRIGGER OUT terminal × 1 |
| Alarm hold duration: | 8 setttings: 5, 10, 20, 30, 60, 90, 120 or 180 sec. |
| Auto sequential duration: | 8 settings: 1, 2, 3, 4, 5, 6, 8 or 10 sec. |
| Picture tone: | 8-bit video (256 gradations) |

## SVT-5050P

### Colour time lapse videocassette recorder

•12 different time lapse recording/playback modes are available in addition to the standard mode (3 hour time mode) with a normal 180-minute tape

| TIME MODE (h) | 3 | 12 | 24 | 48 | 72 | 96 | 120 | 168 | 240 | 360 | 480 | 720 | 960 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTERVAL (s) | 1/50 | 0.1 | 0.18 | 0.34 | 0.5 | 0.66 | 0.82 | 1.14 | 1.62 | 2.42 | 3.22 | 4.82 | 6.42 |

Note: In time lapse modes, it is possible to additionally record three hours longer than the original modes.

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 3-hour mode can be played back by any VHS VCR •Audio recording and playback are possible in 3,12 and 24-hour modes •Built-in time and date generator allows a required scene to be easily searched by presetting the desired time and date •Multiple recording modes such as Auto Repeat Recording, Timer Recording, Alarm Recording, One-shot Recording and Series Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Quick recording check function •By using alarm recall/scan/search functions, pictures recorded during alarm mode can also be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting possible when several VCRs connected •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output/Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5mm mini jack

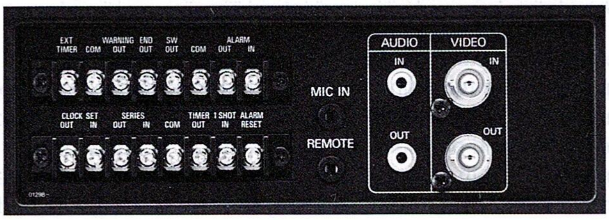
Supplied accessories: AC power cord
Operating instruction manual
Optional accessories: RS-232C interface board SVT-RS1A
Remote control unit SVT-RM10

### Specifications

**General**
Power requirements: AC 220 to 240V, 50/60Hz
Power consumption: 18W
Operating temperature: 5 to 40°C (41 to 104°F)
Operating humidity: Less than 80%
Dimensions: 420 (W) × 100 (H) × 349 (D) mm
(16⁵/₈ × 4 × 13³/₄ inches)
Mass: Approx. 5.5 kg (12 lb 2 oz)
Tape speed: 23.39 mm/sec (3-hour mode)
Recording/playback time: 3, 12, 24, 48, 72, 96, 120, 168, 240, 360, 480, 720 and 960 hours (with an E-180 tape) (One shot mode is also available)
Alarm recording speed: 3, 12-hour mode, NC*1
Alarm recording duration: 20s, 40s, 1 m, 2 m, 3 m, 4 m, 5 m, CC*2
Fast forward/rewind time: Approx. 4 minutes (with an E-180 tape)

**Video**
Recording system: Rotary two-head helical scanning system
Luminance signal: FM recording
Colour signal: Low-pass band-pass transformation direct recording
Input: 1.0Vp-p, 75Ω, unbalanced (BNC type)
Output: 1.0Vp-p, 75Ω, unbalanced (BNC type)
Horizontal resolution: Colour mode: More than 240TV lines
Black & White mode: More than 350TV lines
Signal-to-noise ratio: 43dB

SONY
VIDEO CASSETTE RECORDER SVT-5050P
TIME LAPSE
EJECT
REC
REC CHECK
STOP



**Audio**
Audio recording mode: 3, 12 and 24-hour mode
Input: –7.8dBu, 47kΩ (phono jack)
Output: –7.8dBu, 600Ω (phono jack)
Microphone input: –60dBu, 600Ω (ø3.5 mm mini jack)

**Others**
Alarm input: Low level
Alarm output: +5V, 5.7kΩ (Low active)
Switch output: +5V, 5.7kΩ (Low active)
Tape end output: +5V, 5.7kΩ (Low active)
Warning output: +5V, 5.7kΩ (Low active)
Timer output: +12V, 5.7kΩ (high active)
External timer input: Low level
Clock set output: +5V, 5.7kΩ (Low active)
Clock set input: Low level
Series output: +5V, 5.7kΩ (Low active)
Series input: Low level
One-shot input: Low level
Alarm reset: Low level
Control terminals: ø3.5mm mini jack
Optional RS-232C interface (D-sub 9-pin)

Notes: *1 No change of recording speed
*2 Duration of alarm recording continues for as long as alarm input remains active.

## SVT-S3050P

### S-VHS Time Lapse Videocassette Recorder

•High horizontal resolution of 400TV lines using S-VHS format •Excellent signal-to-noise ratio of 45dB •7 different time lapse recording/playback modes are available in addition to the standard mode (3-hour time mode) with a normal 180-minute tape

| TIME MODE (h) | 3 | 12 | 24 | 48 | 72 | 96 | 120 | 168 |
|---|---|---|---|---|---|---|---|---|
| INTERVAL (s) | 1/50 | 0.1 | 0.18 | 0.34 | 0.5 | 0.66 | 0.82 | 1.14 |

Note : In time lapse mode, it is possible to additionally record three hours longer than original modes.

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 3-hour mode can be played back by any S-VHS or VHS VTR •Audio recording and playback are possible in 3, 12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Quick recording check function •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting is possible when several VTRs are connected •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output/Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5 mm mini jack (optional Remote Control Unit SVT-RM10)

| | |
|---|---|
| Supplied Accessories: | AC power cord (1)<br>Operation manual (1) |
| Optional Accessory: | Remote control unit SVT-RM10 |

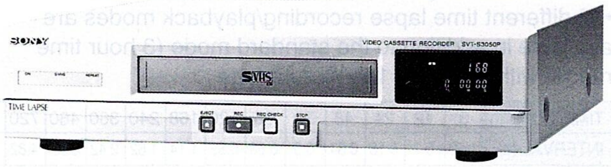
### Specifications

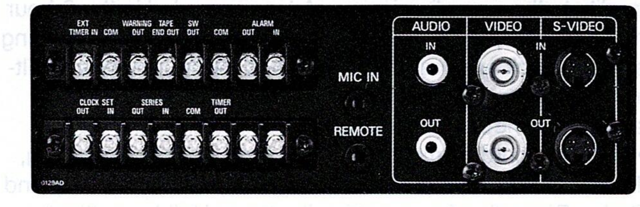
**General**

| | |
|---|---|
| Tape format: | S-VHS or VHS |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 18W |
| Operating temperature: | 5˚C to 40˚C (41˚F to 104˚F) |
| Operating humidity: | Less than 80% |
| Dimensions: | 420 (W) × 100 (H) × 340 (D) mm<br>(16 5/8 × 4 × 13 1/2 inches) |
| Mass: | Approx. 5.8 kg (12 lb 9 oz) |
| Tape speed: | 23.39 mm/sec (3-hour mode) |
| Recording/playback time: | 3, 12, 24, 48, 72, 96, 120 and 168 hours (with an SE/E-180 tape) |
| Alarm recording speed: | 3, 12-hour mode, NC*1 |
| Alarm recording duration: | 20 s, 1 m, CC*2 |
| Fast forward/rewind time: | Approx. 4 minutes (with an SE/E-180 tape) |

**Video**

| | |
|---|---|
| Recording system: | Rotary two-head helical scanning system<br>Luminance signal: FM recording<br>Colour signal: Low-pass band-pass transformation direct recording |
| Input: | BNC: 1.0Vp-p, 75Ω, unbalanced<br>S-VIDEO: Mini DIN 4-pin<br>Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω |
| Output: | BNC : 1.0Vp-p, 75Ω, unbalanced<br>S-VIDEO: Mini DIN 4-pin<br>Y: 1.0Vp-p, 75Ω, sync negative<br>C: 0.3Vp-p, at burst level, 75Ω |
| Horizontal resolution: | Colour mode : More than 400TV lines (S-VHS)<br>Black & White mode: More than 400TV lines (S-VHS) |
| Signal-to-noise: | 45dB (S-VHS) |





**Audio**

| | |
|---|---|
| Audio recording mode: | 3, 12 and 24-hour mode |
| Input: | –7.8dBu, 47kΩ (phono jack) |
| Output: | –7.8dBu, 600Ω (phono jack) |
| Microphone input: | –60dBu, 600Ω (ø3.5 mm mini jack) |

**Others**

| | |
|---|---|
| Alarm input: | Low level |
| Alarm output: | +5V, 5.7kΩ (Low active) |
| Switch output: | +5V, 5.7kΩ (Low active) |
| Tape end output: | +5V, 5.7kΩ (Low active) |
| Warning output: | +5V, 5.7kΩ (Low active) |
| Timer output: | +12V, 5.7kΩ (High active) |
| External timer input: | Low level |
| Clock set input: | Low level |
| Clock set output: | +5V, 5.7kΩ (Low active) |
| Series input: | Low level |
| Series output: | +5V, 5.7kΩ (Low active) |
| Control terminals: | ø3.5 mm mini jack<br>Optional RS-232C interface (D-sub 9-pin) |

[1] No change of recording speed

[2] Duration of alarm recording continues for as long as alarm input remains active.

0dBu = 0.775Vrms

## SVT-1000P

### Colour time lapse videocassette recorder

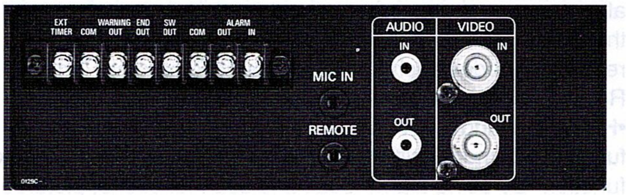
SONY
VIDEO CASSETTE RECORDER SVT-1000P
TIME LAPSE

•4 different time lapse recording/playback modes are available in addition to the standard mode (3 hour time mode) with a normal 180-minute tape

| TIME MODE (h) | 3 | 12 | 24 | 48 | 72 |
|---|---|---|---|---|---|
| INTERVAL (s) | 1/50 | 0.1 | 0.18 | 0.34 | 0.5 |

Note: In time lapse modes, it is possible to additionally record three hours longer than the original modes.

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 3-hour mode can be played back by any VHS VCR •Audio recording and playback are possible in 3,12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Holiday setting function •Daylight Saving Time setting function •Quick Recording check function •Field-by-field picture playback capability •External timer input capability •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output/Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5mm mini jack



| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operating instruction manual |
| Optional accessories: | RS-232C interface board SVT-RS1A<br>Remote control unit SVT-RM10 |

### Specifications

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 18W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Operating humidity: | Less than 80% |
| Dimensions: | 420 (W) × 100 (H) × 349 (D) mm<br>($16\frac{5}{8} \times 4 \times 13\frac{3}{4}$ inches) |
| Mass: | Approx. 5.5 kg (12 lb 2 oz) |
| Tape speed: | 23.39 mm/sec (3-hour mode) |
| Recording/playback time: | 3, 12, 24, 48 and 72 hours (with an E-180 tape) |
| Alarm recording speed: | 3, 12-hour mode, NC[*1] |
| Alarm recording duration: | 20s, 1m, CC[*2] |
| Fast forward/rewind time: | Approx. 4 minutes (with an E-180 tape) |

**Video**

| | |
|---|---|
| Recording system: | Rotary two-head helical scanning system<br>Luminance signal: FM recording<br>Colour signal: Low-pass band-pass transformation direct recording |
| Input: | 1.0Vp-p, 75Ω, unbalanced, sync negative (BNC type) |
| Output: | 1.0Vp-p, 75Ω, unbalanced, sync negative (BNC type) |
| Horizontal resolution: | Colour mode: More than 240TV lines<br>Black & White mode: More than 320TV lines |
| Signal-to-noise ratio: | 43dB |

**Audio**

| | |
|---|---|
| Audio recording mode: | 3, 12 and 24-hour mode |
| Input: | –7.8dBu, 47kΩ, unbalanced (phono jack) |
| Output: | –7.8dBu, 600Ω, unbalanced (phono jack) |
| Microphone input: | –60dBu, 600Ω (ø3.5mm mini jack) |

**Others**

| | |
|---|---|
| Alarm input: | Low level |
| Alarm output: | +5V, 5.7kΩ (Low active) |
| Switch output: | +5V, 5.7kΩ (Low active) |
| Tape end output: | +5V, 5.7kΩ (Low active) |
| Warning output: | +5V, 5.7kΩ (Low active) |
| External timer input: | Low level |
| Control terminals: | ø3.5mm mini jack<br>Optional RS-232C interface (D-sub 9-pin) |

[*1] No change of recording speed

[*2] Duration of alarm recording continues for as long as alarm input remains active.

## SVT-124P

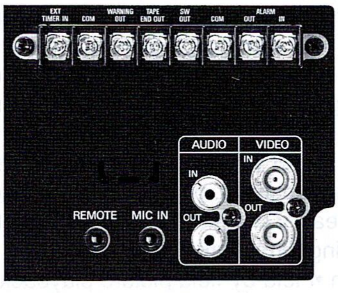
### Colour Time Lapse Videocassette Recorder

•Two different time lapse recording/playback modes are available in addition to the standard mode (3-hour time mode) with a normal 180-minute tape

| TIME MODE (h) | 3 | 12 | 24 |
|---|---|---|---|
| INTERVAL (s) | 1/50 | 0.1 | 0.18 |

SONY
TIME LAPSE
VIDEOCASSETTE RECORDER SVT-124P
24 0:00:00
POWER
REPEAT REC

•Compact body with a 240 mm width •Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •Audio recording and playback are possible in 3, 12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Camera switcher interface •Quick recording check function •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting is possible when several VTRs are connected •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output / Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •Clog detection function •Remote control capability of basic operational functions through ø3.5 mm mini jack (optional Remote Control Unit SVT-RM10)



| | |
|---|---|
| Supplied Accessories: | AC power cord (1)<br>Operation manual (1) |
| Optional Accessory: | Remote control unit SVT-RM10 |

## Specifications

**General**

| | |
|---|---|
| Tape format: | VHS |
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 18W |
| Operating temperature: | 5˚C to 40˚C (41˚F to 104˚F) |
| Operating humidity: | Less than 80% |
| Dimensions: | 240 (W) × 96.5 (H) × 333 (D) mm<br>($9\frac{1}{2} \times 3\frac{7}{8} \times 13\frac{1}{8}$ inches) |
| Mass: | Approx. 3.8 kg (8 lb 6 oz) |
| Tape speed: | 23.39 mm/sec (3-hour mode) |
| Recording/playback time: | 3, 12, 24 hours<br>(with an SE/E-180 tape) |
| Alarm recording speed: | 3-hour mode |
| Alarm recording duration: | 20 s, 40 s, 1 m, 2 m, 3 m, 5 m, CC[1], TRIG |
| Fast forward/rewind time: | Approx. 2.5 minutes (with an SE/E-180 tape) |

**Video**

| | |
|---|---|
| Recording system: | Rotary two-head helical scanning system |
| Input: | BNC : 1.0Vp-p, 75Ω, unbalanced |
| Output: | BNC : 1.0Vp-p, 75Ω, unbalanced |
| Horizontal resolution: | Colour mode : More than 300TV lines<br>Black & White mode : More than 350TV lines |
| Signal-to-noise: | 43dB |

**Audio**

| | |
|---|---|
| Audio recording system: | Monaural |
| Audio recording mode: | 3, 12 and 24-hour mode |
| Input: | –7.8dBu, 47kΩ (phono jack) |
| Output: | –7.8dBu, 600Ω (phono jack) |
| Microphone input: | –60dBu, 600Ω (ø3.5 mm mini jack) |
| Distortion: | Less than 4% |
| Audio signal-to-noise: | 42dB |

**Others**

| | |
|---|---|
| Alarm input: | Low level |
| Alarm output: | +5V, 5.7kΩ (Low active) |
| Switch output: | +5V, 5.7kΩ (Low active) |
| Tape end output: | +5V, 5.7kΩ (Low active) |
| Warning output: | +5V, 5.7kΩ (Low active) |
| External timer input: | Low level |
| Remote/Tally: | Stereo mini pin |
| AC input: | 3-pin inlet |

---

[1] Duration of alarm recording continues for as long as alarm input remains active.
0dBu = 0.775Vrms

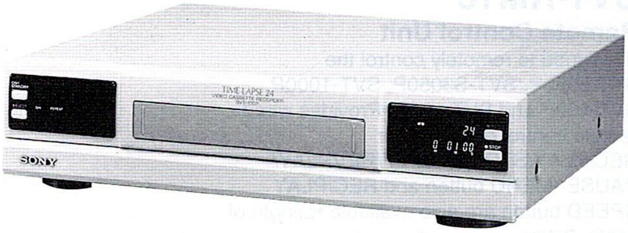
## SVT-100P

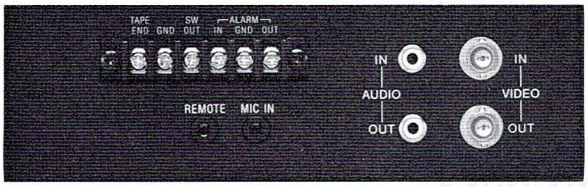
### Colour time lapse videocassette recorder

•2 different time lapse recording/playback modes are available in addition to the standard mode (3 hour time mode) with a normal 180-minute tape

| TIME MODE (h) | 3 | 12 | 24 |
|---|---|---|---|
| INTERVAL (s) | 1/50 | 0.08 | 0.16 |

•A tape recorded in the 3-hour mode can be played back by any VHS VCR •Audio recording and playback are possible in 3, 12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability (Forward only) •On-screen display permits easy-to-follow operation •Power-failure protection for up to 15 days •Security lock function for avoiding accidental operation errors •Remote control capability of basic operational functions through ø3.5mm mini jack





| | |
|---|---|
| Supplied accessories: | AC power cord<br>Operating instruction manual<br>Remote control unit SVT-RM10 |

### Specifications

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 18W |
| Operating temperature: | 5 to 40°C (41 to 104°F) |
| Operating humidity: | Less than 80% |
| Dimensions: | 420 (W) × 100 (H) × 340 (D) mm<br>(16 5/8 × 4 × 13 1/2 inches) |
| Mass: | Approx. 5.6 kg (12 lb 6 oz) |
| Tape speed: | 23.39 mm/sec (3-hour mode) |
| Recording/playback time: | 3, 12 and 24 hours (with an E-180 tape) |
| Alarm recording speed: | 3-hour mode |
| Alarm recording duration: | 1 m, 3 m, CC[*1] |
| Fast forward/rewind time: | Approx. 5 minutes (with an E-180 tape) |

**Video**

| | |
|---|---|
| Recording system: | Rotary two-head helical scanning system<br>Luminance signal: FM recording<br>Colour signal: Low-pass band-pass transformation direct recording |
| Input: | 1.0Vp-p, 75Ω, unbalanced, sync negative (BNC type) |
| Output: | 1.0Vp-p, 75Ω, unbalanced, sync negative (BNC type) |
| Horizontal resolution: | Colour mode: More than 230TV lines<br>Black & White mode: More than 300TV lines |

**Audio**

| | |
|---|---|
| Audio recording mode: | 3, 12 and 24-hour mode |
| Input: | –7.8dBu, 100kΩ, unbalanced (phono jack) |
| Output: | –7.8dBu, 600Ω, unbalanced (phono jack) |
| Microphone input: | –60dBu, high impedance (ø3.5mm mini jack) |

**Others**

| | |
|---|---|
| Alarm input: | No voltage contract closure activated |
| Alarm output: | +5V, 5.7kΩ |
| Tape end output: | +5V, 5.7kΩ |
| Switch output: | +5V, 5.7kΩ |
| Control terminal: | ø3.5 mm mini jack |

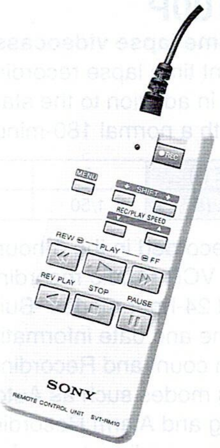
---

[*1] Duration of alarm recording continues for as long as alarm input remains active.

## SVT-RM10

### Remote Control Unit

•Designed to remotely control the SVT-5050P, SVT-S3050P, SVT-1000P, SVT-100P and SVT-124P •Provides wired remote control operation for REC/PLAY/STOP/REW/FF/REVPLAY/PAUSE •MENU button and REC/PLAY SPEED button are also available •Length of cable: 2.4 m


MENU
SHIFT
REC/PLAY SPEED
REW
PLAY
FF
REV PLAY
STOP
PAUSE
SONY
REMOTE CONTROL UNIT SVT-RM10

## SVT-RS1A

### RS-232C Interface Board

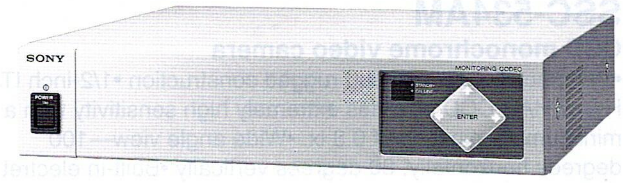
•When installed in the SVT-5050P, SVT-S3050P and SVT-1000P, this board allows these recorders to be remotely controlled from computers •Connectable with common RS-232C cable (male type) •REC CHECK function is available

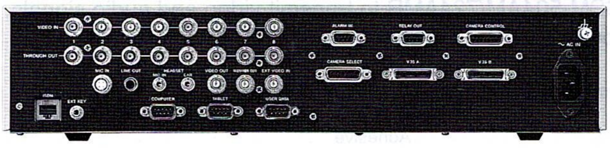
## PMS-500P/400P

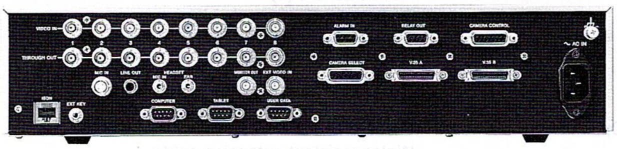
### Monitoring codecs

•Difference of PMS-500P and PMS-400P

| | Video | | Voice | | Control | Data |
|---|---|---|---|---|---|---|
| | Send | Receive | Send | Receive | Send | Receive |
| PMS-500P | YES | YES | YES | YES | YES | YES |
| PMS-400P | YES | NO | YES | YES | YES | YES |







(Both PMS-500P and PMS-400P)
•Transmission of smooth and clear video at a maximum of 15 frames per second via an ISDN line •Selectable video mode (Fast/Normal/Fine) in monitoring •Acceptable 8 camera inputs which are selectable from a control centre or local terminals •I/O port to control camera pan/tilt and zoom lens •Relay output port to control external devices (i.e. door, light) •Transmission and receiving capability of audio which allows conversation between two sites •When an alarm signal is input to a terminal, it automatically activates the control centre to switch the monitor to watch that terminal •Easy connection by connecting to an ISDN modular jack •Compatible with a wide range of cameras, monitors, and TLV equipment •Password protection •RS-232C serial interface for PC control •Remote diagnostics

| | |
|---|---|
| Supplied Accessories: | AC power cord (1)<br>Operation manual (1)<br>Tablet operation seals (1) |

### Specifications

**Video**

| | |
|---|---|
| Coding: | H.261 (ITU-T recommendation) |
| Operating bandwidth: | Selection of 12 bandwidths ranging from 56 kbps to 384 kbps |
| Frame rate: | Max. 15 frames per second |
| Picture elements: | CIF: Luminance (Y): 352 pixels × 288 lines<br>Colour difference (B-Y/R-Y): 176 pixels × 144 lines |
| Colour system: | PAL (mutually connectable with NTSC) |
| P in P: | PMS-500P only |

**Input**

| | |
|---|---|
| Video In/Ext. Video In: | 1.0Vp-p, 75Ω, sync negative (BNC type) |
| Video Out/Through Out: | 1.0Vp-p, 75Ω, sync negative (BNC type) |
| Monitor Out: | 1.0Vp-p, 75Ω, sync negative (BNC type) |

**Input connectors**

| | |
|---|---|
| Video In: | PMS-500P: 8<br>PMS-400P: 8 |
| Ext. Video In: | PMS-500P: 1<br>PMS-400P: 1 |
| Video Out: | PMS-500P: 1<br>PMS-400P: – |
| Monitor Out: | PMS-500P: 1<br>PMS-400P: 1 |

**Audio**

| | |
|---|---|
| Coding: | G.728 (ITU-T recommendation) |
| Transfer rate: | 16kbps |
| Bandwidth: | 3.4kHz |

**Input**

| | |
|---|---|
| Mic In: | –60dBu/600Ω, balanced (4-pin round connector) |
| Headphone Mic In: | –60dBu/4.7kΩ, unbalanced (minijack) |
| Line Out: | Variable, 4.7kΩ (phono) |
| Headphone SP Out: | Variable, 72Ω (minijack) |

**Input connectors**

| | |
|---|---|
| Mic In: | PMS-500P: 1<br>PMS-400P: 1 |
| Headphone Mic In: | PMS-500P: 1<br>PMS-400P: 1 |
| Line Out: | PMS-500P: 1<br>PMS-400P: 1 |
| Headphone SP Out: | PMS-500P: 1<br>PMS-400P: 1 |

**Control procedure coding standards**

H.242 System for Establishing Communication
H.320 Overall System
H.230 Control and Indication Signal
H.221 Framing and Signaling Structure

**Communications interface**

**Network**

| | |
|---|---|
| Multiplexing: | Video, audio, data |
| Transmission rate: | ISDN interface, 1B/2B<br>V35 with RS-366 (56k - 384k) |

**Network connectors**

| | |
|---|---|
| ISDN BRI: | RJ45 |
| V35 with RS-366: | 36-pin half-pitch connector (×2) |

**Computer control port**

| | |
|---|---|
| Interface: | RS-232C |
| Baud rate: | 1200/2400/4800/9600/19200/38400bps |

**Tablet input**

| | |
|---|---|
| Interface: | RS-232C |
| Baud rate: | 9600bps |

**User data I/O**

**I/O parallel**

| | |
|---|---|
| Alarm input: | D-sub 9-pin<br>TTL input, pull-up resistance 10kΩ |
| Relay control: | D-sub 9-pin<br>Output mode : Open collector (40V, 40mA)<br>Input mode : TTL input, pull-up resistance 10kΩ |
| Camera control: | Output mode : Open collector (40V, 40mA)<br>Input mode : TTL input, pull-up resistance 10kΩ |
| Remote control unit: | Mini jack, SIRCS format |
| I/O serial: | D-sub 9-pin |
| Baud rate: | 1200/2400/4800/9600/19200/38400bps |
| Interface: | RS-232C or RS-422 × 1<br>RS-232C or RS-485 × 1<br>RS-232C × 1 |
| RS-232C: | PMS-500P: 3 (switchable with RS-422/485)<br>PMS-400P: 3 (switchable with RS-422/485) |
| Alarm input: | PMS-500P: 8<br>PMS-400P: 8 |
| Relay output: | PMS-500P: 8<br>PMS-400P: 8 |
| Camera P I/O: | PMS-500P: 12<br>PMS-400P: 12 |
| SIRCS input: | PMS-500P: 1<br>PMS-400P: 1 |
| RS-485: | PMS-500P: (1)<br>PMS-400P: (1) |
| Operation keys: | PMS-500P: Main unit keys, Remote control (option), Tablet (option)<br>PMS-400P: Main unit keys, Remote control (option), Tablet (option) |

**Menu display memory**

| | |
|---|---|
| Screen size: | Max. 24 characters × 12 lines (288 characters) |
| Character font: | 24 × 32 pixels |

**General**

| | |
|---|---|
| Power requirements: | AC 220 to 240V, 50/60Hz |
| Power consumption: | 0.35A |
| Operating temperature: | 0˚C to 40˚C |
| Operating humidity: | 20% to 80% (no condensation) |
| Storage temperature: | –20˚C to 55˚C |
| Storage humidity: | 20% to 75% (no condensation) |
| Mass: | 7.0 kg |
| Dimensions: | 424 (W) × 88 (H) × 356 (D) mm<br>(16 3/4 × 3 1/2 × 14 1/8 inches) |

## SSC-534AM

### CCD monochrome video camera

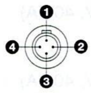
•Compact, lightweight and rugged construction •1/2-inch IT Hyper HAD CCD provides extremely high sensitivity with a minimum illumination of 0.3 lx. •Wide angle view—100 degrees horizontally, 80 degrees vertically •Built-in electret condenser microphone •Only single 4-pin Multiple Cable required between the SSC-534AM and the SSM-504AM/724AMR to transmit video and audio signals, together with DC power

SONY
Hyper HAD

| | |
|---|---|
| Supplied accessories: | Camera bracket<br>Rubber cap<br>Adhesive<br>Self-fusing tapes (2)<br>3mm Allen key<br>4mm washers (4)<br>Angle adjusting screws (4)<br>5mm hexagon head bolts (5)<br>5mm washers (5)<br>Rubber nuts (5)<br>Operating instruction manual |
| Optional accessories: | Camera cable VK-110A/120A (10m/20m)<br>Water-resistant extension cable VK-305 (5m)<br>Water-resistant camera cable VK-310A/320A (10/20m) |

### Specifications

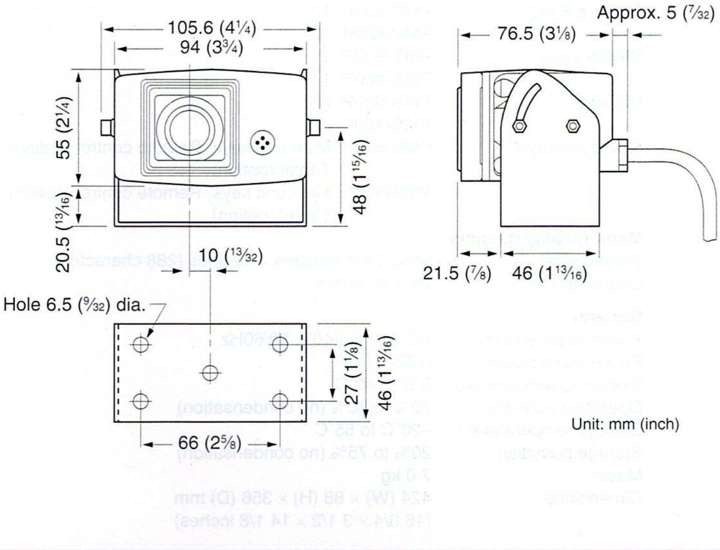
| | |
|---|---|
| Image device: | 1/2-inch Interline Transfer Hyper HAD CCD |
| Picture elements: | 500(H) × 582(V) |
| Sensing area: | 6.3mm × 4.7mm |
| Lens: | f=3.0 mm, F1.6 with auto-iris |
| Video signal system: | CCIR standard |
| Scanning system: | 625 lines, 2:1 interlace |
| Sync system: | Internal |
| Horizontal resolution: | 380TV lines |
| Minimum illumination: | 0.3 lx |
| Signal-to-noise ratio: | 50dB (AGC OFF) |
| Video/audio output: | 4-pin Multi-connector |



❶ DC input
❷ Video output: 1.0Vp-p, 75Ω, sync negative
❸ Ground
❹ Audio output: -5dBu (436mVrms), less than 10kΩ, unbalanced

| | |
|---|---|
| Power requirements: | DC 12V |
| Power consumption: | 1.2W (at DC 12V) |
| Operating temperatures: | -20 to 70°C (-4 to 158°F) |
| Storage temperatures: | -30 to 85°C (-22 to 185°F) |
| Mass: | 550g (1 lb 3 oz) |

**Dimensions**



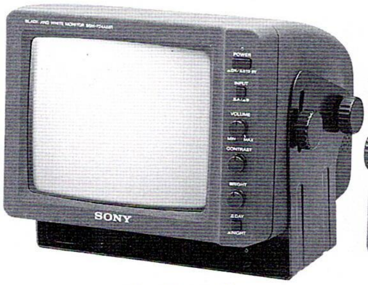
Unit: mm (inch)

# 7-2. Automotive monochrome video monitors

## SSM-504AM/724AMR

### 5-inch/7-inch monochrome monitor

•Offers bright, clear and high-contrast pictures •Compact, lightweight and rugged construction •Built-in speaker •Day/Night switch adjusts picture brightness for normal or low-light conditions •Automatic back-up operation •Only a single 4-pin Multiple Cable required between the SSC-534AM and the SSM-504AM/724AMR to transmit video and audio signals, together with DC power



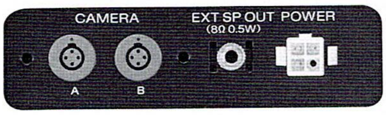
SSM-724AMR

SSM-504AM

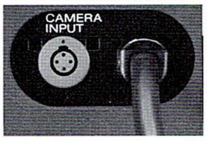
### Exclusive features for SSM-724AMR

•Semi-flat square/non-glare CRT •Audio output connection for an optional external speaker •Dual camera inputs •Alternative power supply mode (DC 12/24V)

| | |
|---|---|
| Supplied accessories: | Mounting bracket<br>Screws (4)<br>Bolts (4)<br>Washers (12)<br>Spring washers (8)<br>Nuts (4)<br>Power supply cable<br>Bracket holder<br>Operating instruction manual<br>Montor scale (SSM-724AMR only) |
| Optional accessory: | Monitor Hood WU-500AM (for SSM-504AM)<br>Monitor Hood WU-700AM (for SSM-724AMR) |


CAMERA
EXT SP OUT
(8Ω 0.5W)
POWER
A
B

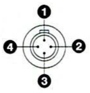
SSM-724AMR


CAMERA INPUT

SSM-504AM

### Specifications

| | |
|---|---|
| Video signal system: | CCIR standard |
| Picture tube: | 5-inch/7-inch B/W measured diagonally 90 degree deflection |
| Speaker: | ø50mm (2-inch) Impedance 8Ω,<br>SSM-504AM: 0.3W output (max.),<br>SSM-724AMR: 0.5W OUTPUT (max.) |
| Video/audio input: | 4-pin Multi-connector |

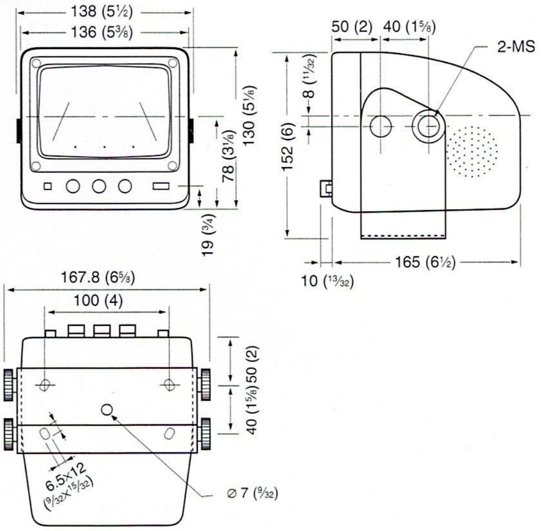


❶ 12V DC output
❷ Video input: 1.0Vp-p, 75Ω, sync negative
❸ Ground
❹ Audio input: -5dBu (436mVrms) more than 30kΩ, unbalanced

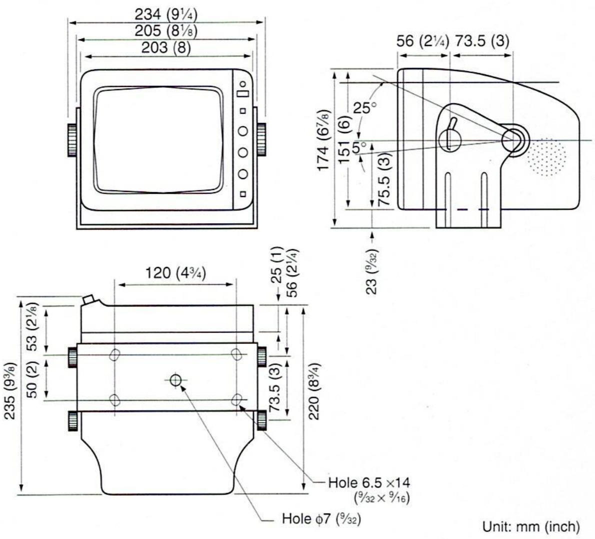
| | |
|---|---|
| Output: | External speaker jack (mini jack) (SSM-724AMR only), impedance 8Ω |
| Power requirements: | SSM-504AM: DC 12V<br>SSM-724AMR: DC 12V or 24V |
| Power consumption: | SSM-504AM: 8W<br>SSM-724AMR: 23W |
| Operating temperature: | -15 to 60°C (5 to 140°F) |
| Storage temperature: | -25 to 80°C (-13 to 185°F) |
| Mass: | SSM-504AM: Approx. 2.5kg (5 lb 8 oz)<br>SSM-724AMR: Approx. 3.2kg (7 lb) |

**Dimensions**

SSM-504AM


138 (5½)
136 (5⅜)
130 (5⅛)
78 (3⅛)
19 (¾)
50 (2)
40 (1⅝)
2-MS
152 (6)
8 (¹¹⁄₃₂)
10 (¹³⁄₃₂)
165 (6½)
167.8 (6⅝)
100 (4)
50 (2)
40 (1⅝)
6.5×12 (⁹⁄₃₂×¹⁵⁄₃₂)
⌀ 7 (⁹⁄₃₂)

SSM-724MR


234 (9¼)
205 (8⅛)
203 (8)
56 (2¼)
73.5 (3)
25°
5°
174 (6⅞)
151 (6)
75.5 (3)
23 (⁹⁄₃₂)
120 (4¾)
25 (1)
56 (2¼)
235 (9⅜)
50 (2)
53 (2⅛)
73.5 (3)
220 (8¾)
Hole 6.5 ×14 (⁹⁄₃₂ × ⁹⁄₁₆)
Hole ϕ7 (⁹⁄₃₂)

Unit: mm (inch)

# SECTION 9 VIDEOCONFERENCING SYSTEM

**1. Videoconferencing system**

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# PCS-5100P

## TriniCom 5100 Rollabout package

•Designed for middle to small group meeting (2 to 6 persons per location) •Complies with the ITU-T H.261 standard for Video Coding, and the G.722/711/728 for Audio Coding •Either ISDN BRI, a switched line, or a dedicated digital network (for 56 to 384kbps) can be used for communication interface •Enhanced video quality •Smooth motion video achieved by the frame rate of 30fps•4-site multipoint capability for holding videoconferences involving up to four locations •Wireless remote commander and on-screen menu icons assure easy operation •High-resolution 1/3-inch CCD camera provides excellent picture reproduction •Auto-tracking camera with pan/tilt/zoom capability to detect motion and follow an individual speaker •Remote camera control possible •Rollabout processor combines an ITU-T standard video/audio CODEC, system controller, communication network interface and echo canceller all into one unit •A second monitor can be added to display documents and graphics with the optional PCS-G500P Dual Monitor Board •High-resolution monochrome documents and full-colour still video pictures can be transmitted and displayed •The optional PCS-T500 Drawing Tablet for pointing or drawing on a document or still video •Automatic Lip Sync on/off function •Automatic dialing function

## Basic system configuration

•PCS-5100P Rollabout Package - Camera unit, Rollabout processor, Audio unit, Remote commander

| | |
|---|---|
| Supplied accessories: | S-video cable (1 m)<br>Audio unit cable (10 m)<br>Camera unit cable (2 m)<br>IR repeater<br>ISDN cable (3 m)<br>AC power cord (for Rollabout processor, 2.5 m)<br>Size AA alkaline batteries for remote commander<br>Operation manual |
| Optional accessories: | PCS-A510 Audio unit (For additional purchase)<br>PCS-F500 Cabinet<br>PCS-F510 Cabinet (for 34 inch monitor)<br>PCS-G500P Dual monitor board<br>PCS-R500 Remote commander (For additional purchase)<br>PCS-R510 Key commander<br>PCS-T500 Drawing tablet<br>PCS-I500 V.35 Board<br>PCS-I510 X.21 Board<br>PCS-I520 RS-449 Board<br>PCS-I530 I-MUX (BONDING Inverse Multiplex) Board<br>PCS-UC500 T.120 Upgrade Card<br>PCS-MC10 Memory card<br>PCS-K21 Printer cable<br>PCS-K32 V.35 Cable<br>PCS-K40 RS-449 Cable<br>PCS-K60 S-video Cable<br>PCS-K70 X.21 Cable |

## Specifications

### Motion Video

| | | |
|---|---|---|
| Operating bandwidth: | 56kbps (64kbps) to 384kbps in 56k or 64kbps increments | |
| Coding: | H.261 (ITU-T Standard) | |
| Picture elements: | CIF | 352 pixel 5288 lines |
| | QCIF | 176 pixel 5144 lines |
| Video signal system | PAL<br>(As complied with H.261, PCS-5100 can communicate directly with PCS-5100P and vice versa.) | |

### Audio

| | | |
|---|---|---|
| Bandwidth and coding: | G.722 | 7.0kHz at 48k or 56kbps |
| | G.711 | 3.4kHz at 56k or 64kbps |
| | G.728 | 3.4kHz at 16kbps |
| Cable length: | 10 m (From Rollabout Processor to Audio Unit) | |
| Expandability: | Max. three Audio Unit can be allowed to use simultaneously. | |

### Camera

| | | |
|---|---|---|
| Camera: | 1/3" CCD | |
| Preset: | up to 6 position (Pan/Tilt/Zoom) | |
| Picture elements: | 752 pixels × 582 lines | |
| Focal length: | 5.4~64.8 mm | |
| Focus: | Auto/Manual switchable | |
| Iris: | Auto, AGC | |
| Zoom ratio: | 12 × | |
| Output signal: | S-Video (1), Composite (1) | |
| Pan control: | ±100°, Motor-driven | |
| Tilt control: | ±25°, Motor-driven | |
| Resolution: | More than 450 TV lines | |
| S/N ratio: | 45dB | |
| Far-end control: | Zoom | Tele/Wide |
| | Focus: | Auto/Manual (far, near) |
| | Pan: | Right/Left |
| | Tilt: | Up/Down |
| Others: | Auto Tracking, Auto Zooming<br>Back Light Shooting | |

### Graphics

| | |
|---|---|
| Resolution: | 704 pixels x 576 lines |
| Input signal: | S-Video(2), Composite (1) With PCS-G500P, RGB(1) is added. |
| Compression method: | JPEG (Joint Photograph Expert Group), H.261 Annex D (4 × CIF) |
| Transmitting time: | Approx.15 s at line rate 112k to 384kbps<br>Storage Capacity Max. 30pages (Color) in total for both graphics and document |

### Document

| | | |
|---|---|---|
| Resolution (Processing): | 200dpi (8dots/mm) (1728 x 2376 in A4 paper) | |
| Resolution (Display): | 704 pixels × 576 lines with 16 grey scale | |
| Input signal: | SCSI interfaced to Document Scanner | |
| Paper size: | A4 | |
| Output signal: | Centronics interfaced to Laser-beam Printer (HP LaserJet4 P/4 PJ, HP LaserJet4 Plus, HP Laser jet 5L) | |
| Printing time: | approx. 1 min. /A4 Black and White with 16 grey scale | |
| Display scanning: | 15.625 kHz (black-and-white with 16 gray-scale) | |
| Compression method: | MMR (Modified Modified READ) | |
| Transmitting time: | Approx. 7 sec at line rate 112k to 384kbps | |
| Scanning time: | Approx. 8 sec at A4 paper (PCS-D200) | |
| Manipulations: | Rotation | 90° step |
| | Size | × 1, × 2, × 4 |
| | Scroll | Vertical up and down<br>Horizontal right and left |
| Storage capacity: | Max. 30 pages(Color) in total for both document and graphics | |

### Picture in Picture

| | |
|---|---|
| Sub screen size: | 1/9 |
| Position: | One of four corners |
| Motion video mode: | (Main) Motion Video of remote site<br>(Sub) Motion Video of local site |
| Document mode: | (Main) Document<br>(Sub) Motion Video of remote site |
| Graphics mode: | (Main) Graphics<br>(Sub) Motion Video of remote site |

### Pointing and Drawing

| | |
|---|---|
| Input device: | RS-232C interfaced Drawing Tablet (PCS-T500)<br>Electromagnetic Tablet and Pen system |
| Pointer: | Finger Mark |
| Line thickness: | 3 size |
| Eraser size: | 1 size plus All |
| Color: | White/Red/Green for Graphics<br>Black/White for Document |

| | | |
|---|---|---|
| **Transmission** | | |
| Multiplexing: | Video, Audio, Data | |
| Frame format: | ITU-T H.221 | |
| Interface: | ISDN (BRI) × 3,<br>X.21 × 2 (*)<br>V.35 × 2 with RS-366 (*)<br>RS-449x1 (*)<br>I-Mux (*) | |
| Rate: | ISDN | 56/64kbps to384kbps in 56/64kbps increments |
| | V.35 (*) | 56/64kbps to 384kbps in 56/64kbps increments |
| | Dual V.35 (*) | 56kbps × 2, 64kbps × 2 |
| | RS-449 (*) | 56/64k~384kbps in 56/64kbps increments |
| | X.21 (*) | 56/64k~384kbps in 56/64kbps increments |
| | Dual X.21 (*) | 56kbps × 2, 64kbps × 2 |
| | I-Mux (*) | 168k~384kbps |
| **Data Port** | | |
| RS-232C: | Aux Control Port | × 1, 9.6kbps, /Stop bit 2/Non parity/Data bit 8 |
| | User Data Port | × 1, 9.6kbps/38.4 kbps, /Stop bit 1/Non parity/Data bit 8 |
| **Lip Synchronization** | | |
| System | Automatic<br>Manual ON/OFF | |
| **Echo Cancellation** | | |
| Bandwidth: | 7kHz | |
| **Diagnostics** | | |
| Local operation: | Remote Commander or Data Terminal | |
| Remote operation: | Data terminal via Modem through analog telephone network<br>Rollabout via ISDN or digital network | |
| **Remote Commander** | | |
| Signal format: | Infrared SIRCS | |
| Key: | Direction Pad and Exec. Key<br>Power On<br>Mic Mute: | |
| Power: | AA/LR6/AM3 (N) Alkaline52 battery | |
| **General** | | |
| Operating temperature | 5°C to 35°C | |
| Operating humidity | 20% to 80% | |
| Storage temperature | –20°C to 60°C | |
| Storage humidity | 20% to 75% | |
| Power requirement | AC 220~240V, 50/60Hz | |
| Power consumption | 0.5A | |
| Dimensions: | Rollabout Processor: | 190(W) × 340(H) × 310(D) mm<br>(7 1/2 × 13 1/2 × 12 1/4 inches) |
| | Audio Unit: | 276(W) × 83(H) × 185(D) mm<br>(10 7/8 × 3 3/8 × 7 3/8 inches) |
| | Camera Unit: | 142(W) × 109(H) × 164(D) mm<br>(5 5/8 × 4 3/8 × 6 1/2 inches) |
| | Remote Commander: | 42(W) × 30(H) × 182(D) mm<br>(1 11/16 × 1 3/16 × 7 1/4 inches) |
| Mass: | Rollabout Processor: | 9.0 kg (19 lb 13 oz) |
| | Audio Unit: | 1.0 kg (2 lb 3 oz) |
| | Camera Unit: | 1.2 kg (2 lb 10 oz) |
| | Remote Commander: | 0.13 kg (4.6 oz) |

NOTE: (*): An optional board is required.

* The above photograph is an example of the TriniCom 5100 system, including the PCS-5100P.

* The shape of the above camera is slightly different from the actual camera unit of the PCS-5100P.

## PCS-3000P

### TriniCom 3000 Rollabout Package

•Easy to operate •Simple operation achieved with well-selected functions •3-site multipoint capability •Designed for a small-group meeting •Upgradeable up to 256 kbps and 4-site mutipoint operation

| | |
|---|---|
| PCS-3000P package configuration: | Rollabout Processor, Camera Unit, Microphone Unit, Remote Commander |
| Supplied Accessories: | S-video cable (1.3 m)<br>Audio unit cable (8 m)<br>Camera unit cable (2 m)<br>IR repeater<br>ISDN cable (3 m)<br>AC power cord<br>Operation manual |
| Optional accessories: | PCS-A300 Microphone (For additional use)<br>PCS-F500 Cabinet (for 29-inch monitor)<br>PCS-F510 Cabinet (for 34-inch monitor)<br>PCS-R500 Remote Commander Unit<br>PCS-R510 Key Commander<br>PCS-T300 Operational Tablet<br>PCS-I300 BRI Board (For 4B and 4-site mutipoint)<br>PCS-I500 V.35 Board<br>PCS-K32 VC.35 Cable<br>PCS-K60 S-video Cable |

*For additional use only

### Specifications

**General**

| | |
|---|---|
| Power requirements | AC 220/240V, 50/60Hz |
| Power consumption: | 0.4 A |
| Operating Temperature: | 5°C to 35°C (41° to 94°F) |
| Operating humidity: | 20% to 80% |
| Storage temperature: | –20° to 60°C (–4° to 140° F) |
| Storage humidity: | 20% to 80% |

**Motion Video**

| | |
|---|---|
| Operating bandwidth: | 56 kbps (64 kbps) to 128 kbps in 56 kbps or 64 kbps increments (With the PCS-I300 installed, 56 kbps to 256 kbps) |
| Coding: | H.261 (ITU-T standard) |
| Picture elements: | CIF: 352 pixels x 288 lines<br>QCIF:176 pixels x 144 lines |
| Video signal system: | PAL standard (As complies with H.261 standard, PCS-3000 NTSC model can communicate directly with PCS-3000P and vice-versa) |
| Frame rate: | 15 fps |
| Input signals: | S-video (x1), Composite (x1); used in common with input for graphics |
| Output signals: | S-video (x1), Composite (x1) |

**Audio**

| | | |
|---|---|---|
| Bandwidth and coding: | G.722 | 7.0 kHz at 48 kbps or 56 kbps |
| | G.711 | 3.4 kHz at 56 kbps or 64 kbps |
| | G.728 | 3.4 kHz at 16 kbps |
| Cable length: | 8 m (from rollabout processor to audio mics) | |
| Expandability: | Maximum of 2 microphone (PCS-A300) can be used simultaneously | |

**Camera**

| | |
|---|---|
| Image device: | 1/3-inch color CCD (digital) |
| Picture elements: | 752 pixels × 582 lines |
| Preset: | Up to 6 positions (Pan/tilt/zoom) |
| Focal length: | 5.4 mm to 64.8 mm |
| Focus: | Audo/manual switchable |
| Iris: | Auto |
| Zoom ratio: | 12× |
| Output signal: | S-video (×1), Composite (×1) |
| Pan control: | ±100°, motor-driven |
| Tilt control: | ±25° motor-driven |
| Resolution: | PCS-3000: 460 TV lines<br>PCS-3000P: 450 TV lines |
| Signal-to-noise ratio: | 45dB |
| Far-end control: | Zoom (tele/wide), focus (audo/manual), pan(right/left), tilt (up/down) |
| Tracking modes: | Audo-Tracking, Backlight shooting, Brightness control |

**Graphics**

| | |
|---|---|
| Resolution: | 704 pixels × 576 lines |
| Input signals: | S-video (×1), Composite (×1) |
| Compression method: | H.261 Annex D (CIF × 4) |

* This above photograph is an example of the TriniCom 3000 system, including the PCS-3000P.
* The shape of the above camera is slightly different from the actual camera unit of the PCS-3000P.

**Picture-in-Picture**

| | |
|---|---|
| Sub screen size: | 1/9 |
| Position: | One of four cornders |
| Motion video mode: | Main screen: motion video of remote site<br>Sub screen: motion video of local site |

**Transmission**

| | |
|---|---|
| Multiplexing: | Video, audio, data |
| Frame format: | ITU-T H.221 |
| Interface: | ISDN (BRI) ×1<br>*With the optional PCS-I300: Another ISDN (BRI) x1 can be added<br>*With the optional PCS-I500: V.35 x2 (with RS-366) can be added |
| Rate: | ISDN: 56/64 kbps to 128 kbps in 56/64 kbps increments<br>*With the optional PCS-I300: 56/64kbps to 256kbps in 56/64 kbps increments<br>*With the optional PCS-I500: V.35: 56/64 kbps to 384 kbps in 56/64 kbps increments<br>Dual V.35: 56/64 kbps x 2, 64 kbps x 2 |

**T-120 Data Port**

| | |
|---|---|
| RS-232C: | 9.6 kbps/ 38.4 kbps |

**Auxiliary Data Port**

| | |
|---|---|
| RS-232C: | 9.6 kbps |

**Lip Synchronization**

| | |
|---|---|
| Setting: | Auto or Manual ON/OFF |

**Echo Cancellation**

| | |
|---|---|
| Audio bandwidth: | 7kHz |

**Diagnostics**

| | |
|---|---|
| Local operation: | Remote Commander unit or data terminal |
| Remote operation: | Data terminal via modeem through analog |

**Remote Commander**

| | |
|---|---|
| Signal format: | Infrared Control S |
| Keys: | Direction pad with Execute, Power On, Mic Mute Keys |
| Power: | AA/LR6/AM3 (N) Alkaline battery |

**Dimensions and Mass**

| | |
|---|---|
| PCS-3000P | |
| Rollabout processor: | 190(W) × 340(H) × 310(D) mm<br>($7^{1}/_{2}$ × $13^{1}/_{2}$ × $12^{1}/_{4}$ inches) |
| Microphone: | 68(W) × 15(H) × 90(D) mm<br>($2^{3}/_{4}$ × $^{19}/_{32}$ × $3^{5}/_{8}$ inches) |
| Camera Unit: | 142(W) × 109(H) × 164(D) mm<br>($5^{5}/_{8}$ × $4^{3}/_{8}$ × $6^{1}/_{2}$ inches) |
| Remote Commander: | 42(W) × 30(H) × 182(D) mm<br>($1^{11}/_{16}$ × $1^{3}/_{16}$ × $7^{1}/_{4}$ inches) |
| PCS-F300 | |
| 20" Cart: | 590(W) × 800(H) × 560(D) mm<br>($23^{1}/_{4}$ × $31^{1}/_{2}$ × $22^{1}/_{8}$ inches) |
| PCS-T300 | |
| Operational Tablet | 191(W) × 7(H) × 175(D) mm<br>($7^{5}/_{8}$ × $^{9}/_{32}$ × 7 inches) |
| PCS-R510 | |
| Key Commander | 89(W) × 197(H) × 36(D) mm<br>($3^{5}/_{8}$ × $7^{7}/_{8}$ × $1^{1}/_{16}$ inches) |

| | |
|---|---|
| PCS-3000P | |
| Rollabout processor: | 7.0 kg (15 lb 6.9 oz) |
| Microphone: | 0.2 kg (7.1 oz) |
| Camera Unit: | 1.2 kg (2 lb 10.4oz) |
| Remote Commander: | 0.13 kg (4.6 oz) |
| PCS-F300 | |
| 20" Cart: | 45.0 kg (99 lbs 3 oz) |
| PCS-T300 | |
| Operational Tablet | 0.35 kg (12 oz) |
| PCS-R510 | |
| Key Commander | 0.3 kg (10.5 oz) |

# PCB-500P

## PC Conference Kit

•Designed for personal data communication on PC environment •Employs high quality video camera with excellent picture quality and 60° viewing angle •Complies with the ITU-T H.320 standard for video coding •Video quality adjustment in 31 steps •Scaleable video windows •Picture-in-picture and picture-out-picture function •Hands-free operation via the camera unit's built-in microphone •A supplied handset •Lip sync function and echo suppressor •Plug-and-play capability for easy installation •A simple yet comprehensive icon menu for easy and intuitive operation •PC phone function •Telephone directory function •Supports T.120 •Supports Databeam FarSite™ software •Application sharing on either PC •File transfer capability •White-board capability

| | |
|---|---|
| PCB-500P Kit: | PC conference board<br>Camera unit<br>Handset<br>PC Conference software ("FarSite" included) |
| Supplied accessories: | Cable for audio adapter (0.14m x1)<br>ISDN cable (1.8m x2)<br>Audio adapter<br>Cable for handset<br>Operating instructions<br>Camera cable<br>Camera stand<br>AC power adapter for camera unit<br>Installation manual<br>FarSite manual |

## Specifications

### General

| | |
|---|---|
| Operating temperature: | 0°C to 40°C |
| Operating humidity: | 20% to 80% (based on room temperature of 25°C) |
| Preserving temperature: | -25°C to 80 °C |
| Preserving humidity: | 10% to 80% (without condensation) |
| Power requirement: | DC5V, ±5% |
| Power consumption: | 4.25W |
| Dimensions: | PC conference board:<br>126 (W) × 22 (H) × 176 (D) mm<br>(5 × $^{7}/_{8}$ ×7 inches)<br>Camera unit:<br>75 (W) × 35 (H) × 98 (D) mm<br>(3 × $1^{7}/_{16}$ × $3^{7}/_{8}$ inches)<br>Handset:<br>45 (W) × 43 (H) × 205 (D) mm<br>($1^{13}/_{16}$ × $1^{3}/_{4}$ × $8^{1}/_{8}$ inches) |
| Mass: | PC conference board: 160g (5.6 oz)<br>Camera unit: 142 g (4.9 oz)<br>Handset: 130 g (4.6 oz) |

### Transmission

| | |
|---|---|
| Transfer rate: | ISDN 56k to 128kbps<br>(Max. 384kbps using optional Promptus board)<br>LAN 128kbps/256kbps/384kbps (requires LAN board)<br>H.323 software upgradable |

### Video

| | |
|---|---|
| Compression: | ITU-T standard H.261 compatible |
| Transmitted resolution: | FCIF: 352 × 288 pixels up to 26 frames/sec.<br>QCIF: 176 × 144 pixels up to 30 frames/sec. |
| Video input: | Camera-1/Camera-2 inputs switchable via software<br>NTSC/PAL auto detection |
| SVGA resolution: | All SVGA resolutions with 32k or 64k colours |
| Software-controlled features: | Contrast, hue, brightness and colour control<br>Video quality adjustment<br>Scaleable screen size (fixed aspect ratio 4:3) |

### Audio

| | |
|---|---|
| Compression: | ITU-T standard: G.711 3.4kHz at 56kbps<br>G.728 3.4kHz at 16kbps |
| Audio input: | Telephone handset supplied; built-in microphone in camera unit |
| Audio output: | Line-level output<br>Sound Blaster card with multimedia speakers |
| Software-controlled features: | Volume control and mute<br>Echo suppression |

### Camera

| | |
|---|---|
| Image sensor: | 1/4 inch CCD |
| Effective pixels: | 270k pixels (effective: 250k) |
| Lens: | f = 3.9mm/F1.8 |
| Angle of view: | 60 degrees |
| White balance: | Auto |
| Min. illumination: | 9 lx. |
| Video out: | RCA pin jack, 1.0Vp-p composite |
| Power requirement: | DC 4.5V, 1.6W |

### PC System Requirements

| | |
|---|---|
| Platform: | IBM PC or equivalent<br>PCI bus and PCI SUGA card required |
| CPU: | Pentium 90 MHz or above |
| OS: | Windows 3.n or Windows 95 |
| Memory:: | 16 MB or more |
| Hard disk: | More than 15 MB |
| Monitor: | SVGA Monitor |

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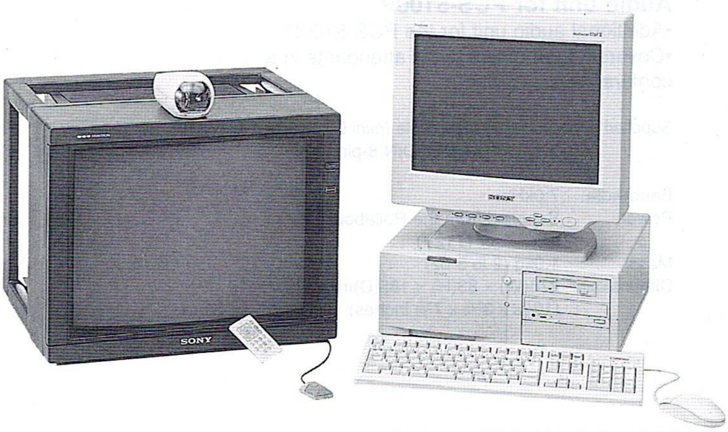
* IBM is a trademark of IBM Corporation.
* Pentium is a trademark of Intel Corporation.
* Windows is a registered trademark of the Microsoft Corporation.
* FarSite is a trademark of Databeam Corporation.

## PCB-600P

### PC Conference Kit

•Designed for small group videoconference user who wants inexpensive videoconferencing system with data handling •Employs a highly efficient camera with excellent picture quality and performance •Complies with the ITU-T H.320 standard for video coding •Video output for a second monitor which can be added to display motion pictures •Video quality adjustment •Fully scaleable video window •Two composite video inputs •Picture-in-picture function •A compact and unique microphone design assures optimum voice pick-up •Full duplex Echo Canceler and Automatic Lip Sync functions •Plug-and-play for easy installation •Simple yet comprehensive menu icons make operation easy •Telephone directory function •Supports T.120 •Supports Databeam FarSite software •Application software can be shared on both PCs •Capable of transferring files •Capable of sharing interactive white-board



| | |
|---|---|
| PCB-500P Kit: | PC conference board<br>PC Conference software ( 'FarSite' included)<br>Camera unit<br>Microphone (with 5 m cable) |
| Supplied accessories: | Cable for audio adapter (0.14 m x1)<br>Microphone extension cable (3 m)<br>ISDN cable<br>Camera cable (3 m)<br>AC power adapter for camera unit<br>IR remote commander for camera unit<br>Conference software<br>FarSite application software |

## Specifications

**General**

| | |
|---|---|
| Operating temperature: | 10°C to 35°C |
| Operating humidity: | 20% to 90% |
| Preserving temperature: | –25°C to 90°C |
| Preserving humidity: | 20% to 90% |
| Power requirement: | DC 5 V ±5%, 12 V ±5% |
| Power consumption: | 2 A, 100 mA |
| Dimensions: | PC conference board:<br>126(W) × 22(H) × 176(D) mm<br>(5 × 7/8 × 7 inches)<br>Camera unit:<br>84(W) × 69(H) × 142(D) mm<br>(37 × 2 3/4 × 5 5/8 inches)<br>Microphone:<br>37(W) × 15(H) × 54.5(D) mm<br>(1 1/2 × 19/32 × 2 1/4 inches) |
| Mass: | PC conference board:250 g (8 oz)<br>Camera unit: 450 g (16 oz)<br>Microphone: 88 g (3.1 oz) |

**Transmission**

| | |
|---|---|
| Transfer rate: | ISDN 56k to 128kbps<br>(Max. 384kbps using optional Promptus board) |

**Video**

| | |
|---|---|
| Compression: | ITU-T standard H.261 compatible |
| Transmitted resolution: | FCIF: 352 x 288 pixels up to 15 frames/sec.<br>QCIF: 176 x 144 pixels up to 30 frames/sec. |
| Video input: | Camera-1/Camera-2 inputs switchable via software, RCA pin jack,<br>1.0Vp-p composite NTSC/PAL auto detection |
| VGA resolution: | All VGA resolutions with 32k or 64k colours |
| Software-controlled features: | Contrast, hue, brightness and colour control<br>Video quality adjustment<br>Scaleable screen size (fixed aspect ratio 4:3) |
| Video output: | RCA pin jack, 1.0 Vp-p composite<br>*NTSC/PAL automatically switchable depending on video formats connected to the input |

**Audio**

| | |
|---|---|
| Compression: | ITU-T standard: G.711 3.4 kHz at 56 kbps<br>G.728 3.4 kHz at 16 kbps<br>G.728 3.4 kHz at 16 kbps |
| Audio input: | Microphone/Line in 1 switchable |
| Microphone: | 620 mVrms, 3.3kΩ for electret microphone |
| Line in 1: | 1 Vp-p, 0 dB, 20kΩ, 0dB to +24dB in 6dB step |
| Audio output: | Line out: 1.2 Vrms (0 dB, 40 Ω minimum),<br>-10dB to +18dB in 0.5dB steps |
| Software-controlled features: | Volume control and mute<br>Echo canceler |

**Camera**

| | |
|---|---|
| Image sensor: | 1/4 inch CCD |
| Pixels: | 752 (h) x 585 (v) |
| Lens: | f = +4.5 to 13.5 mm /F2.3 to F4.1,<br>3x zoom, auto focus |
| Angle of view: | 44 degrees (wide), 15 degrees (tele) |
| Auto exposure: | Electronic shutter |
| White balance: | Auto |
| Min. illumination: | 16 lx (more than 50 IRE) |
| Video out: | RCA pin jack, 1.0Vp-p composite |
| Power requirement: | DC 7.5 V to 12 V, 5.6 W (max.) |

# 2. Videoconferencing system accessories

## PCS-A510

**Audio unit for PCS-5100P**

- Additional audio unit for the PCS-5100P
- Covers a total of five to six attendants in a conference

| | |
|---|---|
| Supplied accessories: | Joint cable (mini DIN 8-pin ↔ mini DIN 8-pin, 3m) |

| | |
|---|---|
| Bandwidth: | 7.0kHz |
| Power: | Supplied from the Rollabout processor (+12V) |
| Mass: | 1.0kg (2 lb 3 oz) |
| Dimensions: | 276(W) × 83(H) × 185(D)mm<br>($10\frac{7}{8} \times 3\frac{3}{8} \times 7\frac{3}{8}$ inches) |

## PCS-A300

**Microphone Unit for the PCS-3000P**

- Microphone unit for the PCS-3000P (For additional use only)

| | |
|---|---|
| Supplied accessory: | Cable (8 m) |
| Bandwidth: | 7.0kHz |
| Power: | Plug-in power |
| Mass: | 0.2 kg (7.1 oz) |
| Dimensions : | 68(W) × 15(H) × 90(D) mm<br>($2\frac{3}{4} \times \frac{19}{32} \times 3\frac{5}{8}$ inches) |

SONY
PCS-A300

## PCS-F500

**Cabinet for PCS-5100P and PCS-3000P**

- Holds the rollabout processor and supports virtually any size monitor for the PCS-3000P and the PCS-5100P.

| | |
|---|---|
| Mass: | 33.0kg (72 lb 12 oz) |
| Dimensions: | 590 (W) × 760 (H) × 703 (D)mm<br>($23\frac{1}{4} \times 30 \times 27\frac{3}{4}$ inches) |

## PCS-F510

**Cabinet for 34 inch monitor for PCS-5100P and PCS-3000P**

- Holds the rollabout processor and a 34 inch monitor for the PCS-5100P and the PCS-3000P

| | |
|---|---|
| Mass: | 52.0kg (114 lb 10 oz) |
| Dimensions: | 800(W) × 760(H) × 788(D)mm<br>($31\frac{1}{2} \times 30\frac{1}{8} \times 31\frac{1}{8}$ inches) |

## PCS-G500P

**Dual monitor board for PCS-5100**

•Adds a second monitor to the PCS-5100P to display documents and graphics in a dual-monitor system •VGA input

Supplied accessories:
IR repeater

Mass: 0.3kg (10 oz)
Dimensions: 135(W) × 28.5(H) × 242(D)mm
($5^3/_8 \times 1^1/_8 \times 9^5/_8$ inches)

## PCS-R500

**Remote commander for PCS-5100P and PCS-3000P**

•Additional remote commander for the PCS-5100P and the PCS-3000P

Mass: 0.13kg (4.6 oz)
Dimensions: 42(W) × 30(H) × 182(D)mm
($1^{11}/_{16} \times 1^3/_{16} \times 7^1/_4$ inches)

## PCS-R510

**Key Commander for PCS-5100P and PCS-3000P**

•Additional remote key commander for the PCS-5000P and the PCS-4000P

Mass: 0.3kg (6 oz)
Dimensions: 89(W) × 197(H) × 36(D)mm
($3^5/_8 \times 7^7/_8 \times 1^7/_{16}$ inches)

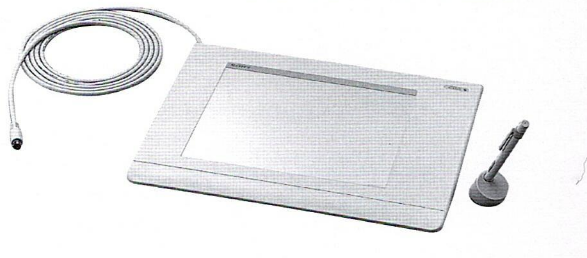
## PCS-T500

**Drawing tablet for PCS-5100P**

•Allows PCS-5100P users to point or draw on the document or still video

Supplied accessories:
Tablet cable (2.5m)
Pen
Pen stand
Operation manual

Mass: 0.95kg (2 lb 2 oz)
Dimensions:
330(W) × 13.9(H) × 243(D)mm
($13 \times {}^9/_{16} \times 9^5/_8$ inches)



## PCS-T300

**Operation Tablet for PCS-3000P**

•Operational tablet for PCS-3000P

Supplied accessories:

Tablet Cable (2 m)
Pen
Pen stand
AC Adaptor
Operation Manual

Mass: 0.35 kg (12 oz)
Dimensions: 191(W) × 7(H) × 175(D) mm
($7\frac{5}{8} \times \frac{9}{32} \times 7$ inches)

## PCS-I500

**V.35 Interface Board for PCS-5100P and PCS-3000P**

•Provides a V.35 line interface

## PCS-I510

**X.21 Interface Board for PCS-5100P**

•Provides an X.21 line interface

## PCS-I520

**RS-449 Interface Board for PCS-5100P**

•Provides an RS-449 line interface

## PCS-I530

**I-MUX Interface Board for PCS-5100P**

- Enables connections compatible with BONDING

## PCS-I300

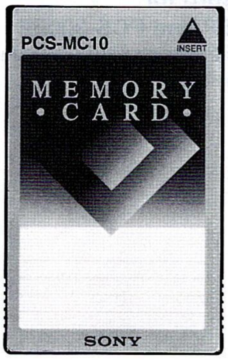
**BRI Interface Board for PCS-3000P**

- Interface with ISDN (BRI) x 2 (256kbps) becomes possible
- 4-site multipoint meeting at 56/64 kbps becomes possible

## PCS-MC10

**Memory Card for PCS-5100P**

- Records up to 30 still pictures



## PCS-K21

**Printer Cable for PCS-5100P**

- Connects the Rollabout Processor and a printer (3m, 9.8 ft)

## PCS-K32

**V.35 Conversion Connector Cable for PCS-5100P and PCS-3000P**

- Connects the V.35 connector (V.35 interface board PCS-I510) to the terminal adapter (1 m, 3.3 ft)

## PCS-K40

**RS-449 Conversion Connector Cable for PCS-5100P**

- Connects the RS-449 Connector to the terminal adapter in the RS-449 line interface (1 m, 3.3 ft)

## PCS-K60

**S-video cord for PCS-5100P and PCS-3000P**

- Cord for connecting video equipment with S-video connector

## PCS-K70

**X.21 Conversion Connector Cable for PCS-5100P**

- Connects the X.21 connector (X.21 interface board PCS-I510) to the terminal adapter (1 m, 3.3 ft)

# 2. Videoconferencing system accessories

## PCS-UC500

### Upgrade Card for PCS-5100P

- Supports T.120 for data conference for the PCS-5100P.

Mass: 30 g (1.0 oz)
Dimensions: 54(W) × 85.6(H) × 3.3(D)mm
(2 1/4 × 3 3/8 × 5/32 inches)

## PCS-UC300

### Upgrade Card for PCS-3000P

- Supports T.120 for data conference for the PCS-3000P

Mass: 30 g (1 oz)
Dimensions: 54(W) × 85.6(H) × 3.3(D) mm
(2 1/4 × 3 1/2 × 5/32 inches)

# SECTION 10 OTHER VIDEO EQUIPMENT AND ACCESSORIES

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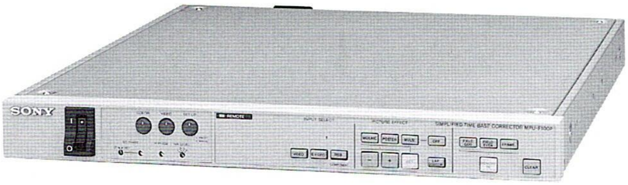
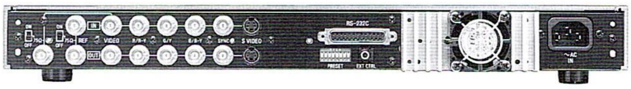
# 1. Peripheral equipment

## MPU-F100P

### Simplified time base corrector

•Accepts asynchronous video signals, locks them with the house sync and outputs synchronous video signals •Time base error corrections to eliminate skew errors and jitter •SC (Sub Carrier) and H (Horizontal sync) phase control •Multiple Inputs/Outputs; composite video, component video (RGB or Y/R-Y/B-Y selectable) and Y/C (S-video) separate video signals •Simple picture effects functions; MOSAIC, POSTERIZATION and MULTI-PICTURE (3 × 3) •External genlock capability for composite video or black burst signal •Synchronization with the timing of the camera signal output of Sony DXC-930P 3-CCD colour video camera in a low speed shutter mode (shutter speed: 1 to 255 frames in Field Mode, 2 to 256 frames in Frame Mode), suited for image processing or analysis applications •Video signal control; colour level, video level and setup level of the composite and Y/C separate video signals •Three levels of noise reduction for still pictures •RS-232C interface for external computer control •19-inch rack mountable with the supplied rack mount adaptor





| | |
|---|---|
| Supplied accessories: | AC power cable<br>Rack mount kit<br>Operation manual<br>Interface manual |

### Specifications

**General**

| | |
|---|---|
| Power requirement: | AC 220V, 230V, 240V, 50Hz |
| Power consumption: | Max. 0.2A |
| Dimensions: | 424(W) × 54(H) × 446(D)mm<br>($18^{3}/_{4}$ × $2^{1}/_{8}$ × $17^{5}/_{8}$ inches) |
| Mass: | 6.5kg (14 lb 5 oz) |

**Video inputs**

| | |
|---|---|
| Composite video: | 1.0Vp-p, 75Ω (BNC) with loop-through |
| S-Video: | Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω (DIN 4-pin) |
| R.G.B.: | 0.7Vp-p, 75Ω (BNC × 3)* |
| Sync: | 4.0Vp-p, 75Ω (BNC) |
| Y/R-Y/B-Y: | Y: 1.0Vp-p, 75Ω<br>R-Y: 0.7Vp-p, 75Ω<br>B-Y: 0.7Vp-p, 75Ω (BNC × 3)*<br>* RGB or Y/R-Y/B-Y is selectable. |
| Reference video: | 1.0Vp-p, 75Ω (composite video or black burst signal, with loop-through) |

**Video outputs**

| | |
|---|---|
| Composite video: | 1.0Vp-p, 75Ω (BNC) with loop-through |
| S-Video: | Y: 1.0Vp-p, 75Ω<br>C: 0.3Vp-p, 75Ω (DIN 4-pin) |
| R.G.B.: | 0.7Vp-p, 75Ω (BNC × 3)* |
| Sync: | 4.0Vp-p, 75Ω (BNC) |
| Y/R-Y/B-Y: | Y: 1.0Vp-p, 75Ω<br>R-Y: 0.7Vp-p, 75Ω<br>B-Y: 0.7Vp-p, 75Ω (BNC × 3)*<br>* RGB or Y/R-Y/B-Y is selectable. |

**Control signal input/output**

| | |
|---|---|
| RS-232C: | RS-232C, D-sub 25-pin female for micro computer control |
| External control: | Mini jack |

**Memory**

| | |
|---|---|
| Memory input: | Odd field, Even field, Frame |
| Frame memory: | Y:R-Y:B-Y = 4:1:1 |

**Video**

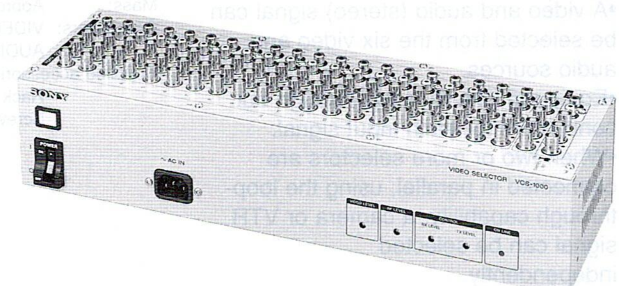
| | |
|---|---|
| Picture effects: | LAP DISSOLVE (transition time: 1.5s)<br>MOSAIC<br>POSTERIZATION<br>MULTI-PICTURE (3 × 3) |
| Gen lock: | H phase: -0.5 to +1μs<br>SC phase: 0° to 360° |

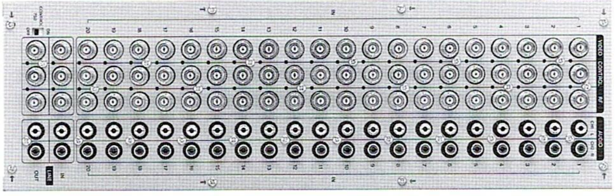
Note: When the MPU-F100P is synchronized with the timing of the camera signal output of the DXC-930P/950P (in the low speed shutter mode), CCMC-9DSMN cable is required additionally.

## VCS-1000

### Video selector

•For use in combination with the SVRM-960 Bi-directional remote controller for high quality picture monitoing •Minimizes the signal reflections caused by long cable runs •Up to 20 SVO-965P equipped with the SVBK-902 optional Bi-directional interface board can be connected to a single VCS-1000 •Loop-through output is provided for connection of up to 50 VCS-1000 units •19-inch EIA rack mountable in various directions •On-Line indicator •When the power is turned off, the LINE OUT becomes a loop-through output of the LINE IN for easy maintenance





| | |
|---|---|
| Supplied accessories: | Mounting brackets (EIA 2U width × 2, DIA 3U width × 2)<br>AC power cord<br>Operation manual |

### Specifications

**General**

| | |
|---|---|
| Mass: | Approx. 4kg (8 lb 13 oz) |
| Dimensions: | 424(W) × 88(H) × 132(D)mm<br>($16\frac{3}{4} \times 3\frac{1}{2} \times 5\frac{1}{4}$ inches) |
| Power requirements: | AC 220 to 240V, 50/ 60Hz |
| Power consumption: | 8.5W max. |
| Maximum number of VTR connection: | 20 units |

**Video**

| | |
|---|---|
| Video signal system: | EIA/CCIR monochrome, NTSC/PAL colour |
| Frequency response: | 6MHz, 100kHz reference |
| S/N ratio: | More than 54dB |

**Audio**

| | |
|---|---|
| Frequency response: | 20Hz to 20kHz, 1kHz -10dBu standard |
| S/N ratio: | More than 85dB |

**RF video**

| | |
|---|---|
| Frequency response: | 6MHz |
| S/N ratio: | More than 54dB |

**Video inputs/outputs**

Video in (from SVO-965P):
BNC (×20), 1Vp-p, sync negative, 37.5Ω, unbalanced
Line in video (from previous VCS-1000):
BNC, 1Vp-p, sync negative, 75Ω unbalanced
Line out video (to SVRM-960 or next VCS-1000):
BNC, 1Vp-p, sync negative, 75Ω unbalanced

**Control inputs/outputs**

Control input (from SVO-965P): BNC (×20)
Rx*[1] input: 1Vp-p, 37.5Ω unbalanced
Tx*[2] output: 1.4Vp-p, 37.5Ω unbalanced
Line in control (from previous VCS-1000):
BNC,
Tx intput: 1Vp-p, 37.5Ω, unbalanced
Rx output: 1Vp-p, 37.5Ω, unbalanced
Line out control (to SVRM-960 or next VCS-1000):
BNC,
Tx input: 1Vp-p, 37.5Ω unbalanced
Rx output: 1Vp-p, 37.5Ω, unbalanced

**RF**

RF IN (from the SVO-965P):
BNC (×20), 1Vp-p, 37.5Ω, unbalanced
Line IN RF (from previous VCS-1000):
BNC, 1Vp-p, 75Ω, unbalanced
Line Out RF (to SVRM-960 or next VCS-1000):
BNC, 1Vp-p, 75Ω unbalanced

**Audio inputs/outputs**

Audio Input (from SVO-965P):
Phono (2-channel × 20), high impedance, unbalanced
Line In audio (from previous VCS-1000):
Phono (2-channel), high impedance, unbalanced
Line Out audio (to SVRM-960 or next VCS-1000):
Phono (2-channel), high impedance, unbalanced

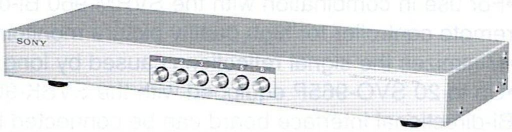
*1: Rx: Signal output from the SVRM-960
*2: Tx: Signal output from the SVO-965P

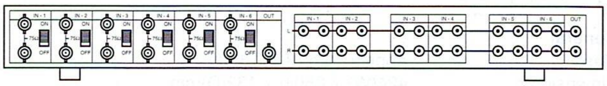
## ⓈVCS-63A

### Video and audio selector

- A video and audio (stereo) signal can be selected from the six video and audio sources.
- Equipped with the loop-through out connectors for each input signal.
- When two or more selectors are connected in parallel, using the loop-through capability, a camera or VTR signal can be selected independently.
- Can be mounted into a 19-inch EIA standard rack using the supplied rack mount adaptor.

Dimensions:
Approx. 424(W) × 44(H) × 170(D)mm
($16^{3}/_{4}$ × $1^{3}/_{4}$ × $6^{3}/_{4}$ inches)
Mass: Approx. 3kg (6 lb 10 oz)
Connectors: VIDEO IN/OUT—BNC type
AUDIO IN/OUT—PHONO
Supplied accessories:
Rack mount adaptor × 2
Screw for rack mounting × 4





## SRP-200DA

### AV Distribution Amplifier

- Can distribute an AV input signal in five ways
- The 75Ω terminator of the video input is automatically disconnected when a cable is connected to the stacking terminal. Up to four units can be connected in parallel
- Can be mounted into a 19-inch EIA standard rack

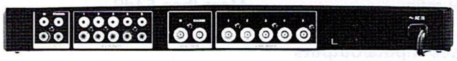
**General**
Dimensions: 482(W) × 44(H) × 175(D)mm
(19 × $1^{3}/_{4}$ × 7 inches)
Mass: 2.5kg (5 lb 8 oz)
Power supply: AC 230V, 50Hz/60Hz
Power consumption:
5W
Operating temperature:
0 to 40°C (32 to 104°F)
Storage temperature:
-20 to +60°C (-4 to +140°F)

**Video Performance**
DG: Less than 0.5%
DP: Less than 0.5°
Input: 75Ω/high impedance
(high impedance at stacking output)
BNC connector x1
Outputs: 75Ω, BNC connector ×5
(high impedance at stacking output)

**Audio performance**
Frequency response:
20Hz to 20kHz
harmonic distortion:
Less than 0.005%

**Inputs**
One stereo: Reference level: -10dBu
Max. input level:
+10dBu
Impedance: 47kΩ
Type: Phono jack
Circuit: Unbalanced

**Outputs**
Five stereo: Reference level: -10dBu
Max. output level:
+10dBu
Impedance: 47kΩ
Type: Phono jack
Circuit: Unbalanced

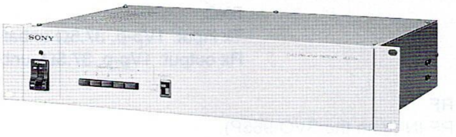


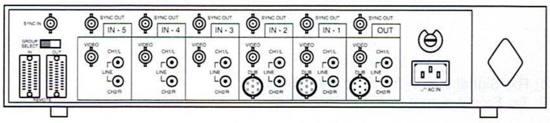
## VCS-500

### Video and audio switcher with blanking switch facility

- The system using the VCS-500 can operate synchronically with the external sync or the video signal connected to the VIDEO IN-1 connector. The signal can be switched in the blanking portion so that switching noise is eliminated
- Up to five video and audio signals can be controlled
- Remote control is possible when an RM-V5 VTR selector is used
- DUB circuit switching function
- Can be mounted into 19-inch EIA standard rack

Inputs: Video—1Vp-p of rating, 75Ω, unbalanced, sync negative
Sync—3V ±1Vp-p, 75Ω, unbalanced, negative
Audio—LINE IN CH-1/CH-2, -5dB of rating, 47kΩ
Outputs: Video—Rated input ±0.2Vp-p, 75Ω, unbalanced, sync negative
Sync—3V ±1Vp-p, 75Ω, unbalanced, negative
Audio—LINE OUT CH-1/CH-2, rated input ±2dB, 47kΩ
Frequency response:
Video ±1dB (up to 6MHz)
Audio 50 to 15,000Hz ±1dB
Connectors: VIDEO IN/OUT—BNC
SYNC IN/OUT—BNC
AUDIO IN/OUT—Phono
REMOTE IN/OUT—20-pin
DUB IN/OUT—7-pin
Power requirements:
AC 100/110/120/127/220/240V ±10% (selectable), 50/60Hz
Power consumption:
20W
Dimensions: 480(W) × 87(H) × 280(D)mm
(19 × $3^{1}/_{2}$ × $11^{1}/_{8}$ inches)
Mass: 7kg (15 lb 7 oz)
Supplied accessories:
AC power cord
Screw for rack mounting





## DA-1400

### Video/audio distributor

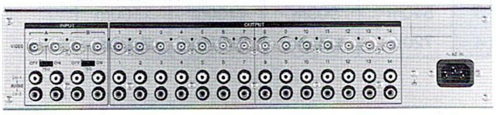
•Two video/audio inputs and fourteen distribution outputs •Four distribution patterns are available: Input signal A (1 to 14 ch), Input signal B (1 to 14 ch), Input signal A (1 to 7 ch)/Input signal B (8 to 14 ch), Input signal B (1 to 7 ch)/Input signal A (8 to 14 ch) •Loop-through output connector for each input signal to expand the connection with other DA-1400s •Video/audio level meters for adjusting and confirming the output signal levels •Audio input level selector (-10dB/-6dB) •19-inch EIA standard rack mountable

Supplied accessories:
AC power cord
Mounting brackets
(EIA 2U width: 1 pair)
Operation manual

**General**
Mass: 6kg (13 lb 23 oz)
Dimensions: 424(W) × 88(H) × 350(D)mm
(16³/₄ × 3¹/₂ × 13⁷/₈ inches)
Power requirements:
AC 220 to 240V, 50/60Hz
Power consumption:
16W

**Video**
Inputs: Loop-through, BNC (×2), 1Vp-p, 75Ω, sync negative
Outputs: BNC (×14), 1Vp-p, 75Ω, sync negative
S/N ratio: Better than 60dB
Frequency response:
10MHz ± 1dB

**Audio**
Inputs: Loop-through, Phono (2-channel) (×2)
Input level: –10dBu/–6dBu switchable, 50kΩ
Outputs: Phono (2-channel) (×14)
Output level: –10dBu/–6dBu, 100Ω
S/N ratio: Better than 70dB at 600Ω
Frequency response:
20Hz to 20kHz ±1dB
Distortion: Less than 0.1%, -10dBu at 1kHz



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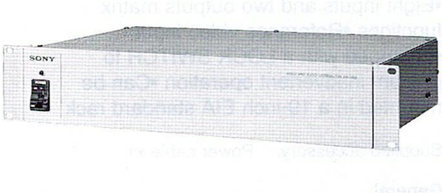
## DA-500

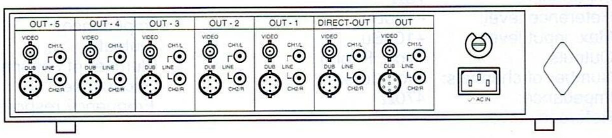
### Colour and monochrome video/audio distributor with DUB connectors

•Five Video/DUB/Audio outputs and one direct output
•DUB connectors are furnished so that a high quality video signal will be obtained
•Up to four DA-500s can be connected in series so that the input signal can be divided into as many as 20 separate signals
•Can be mounted into 19-inch EIA standard rack

Inputs: Video—1Vp-p of rating, 75Ω, unbalanced, sync negative
Audio—LINE CH-1/CH-2, -5dB of rating, 47kΩ, unbalanced
Outputs: Video—OUT 1 to 5, Rated input ±0.2Vp-p, 75Ω, unbalanced, sync negative
Audio—LINE CH-1/CH-2, Rated input ±2dB, 47kΩ

Connectors: VIDEO IN/OUT, DIRECT OUT—BNC
AUDIO IN/OUT, DIRECT OUT—Phono
Power requirements:
AC 100/110/120/127/220/240V ±10% (selectable), 50/60Hz
Power consumption:
20W
Dimensions: 480(W) × 87(H) × 280(D)mm
(19 × 3¹/₂ × 11¹/₈ inches)
Mass: 6.1kg (13 lb 7 oz)
Supplied accessories:
AC power cord
Screw for rack mounting





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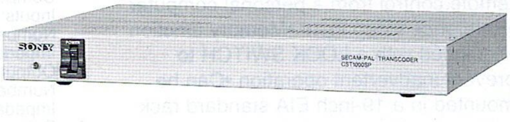
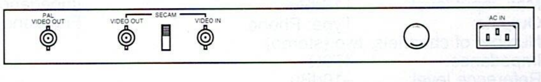
## ⓢCST-1000SP

### SECAM-PAL transcoder

•Converts SECAM colour signal to PAL colour signal

Input signal: SECAM colour composite 1Vp-p, 75Ω switchable of high impedance for loop-through
Output signal:
PAL colour composite, 1Vp-p, 75Ω
Signal conversion method:
Decode/encode
Input/Output connector:
BNC
Power requirements:
AC 220V ±10%, 50/60Hz
Power consumption:
15VA
Operating temperature:
0 to 45°C (32 to 113°F)
Dimensions: 424(W) × 44(H) × 250(D)mm
(16³/₄ × 1³/₄ × 9⁷/₈ inches)
Mass: 4kg (8 lb 13 oz)
Supplied accessories:
AC power cord (×1)
Fuse (315mAT) (×1)
Rack mount metals (×1 set)





## VA-200E

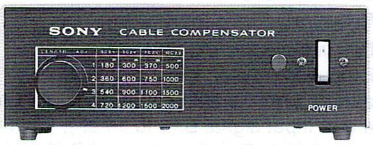
### Cable compensator for stable colour/monochrome video transmission

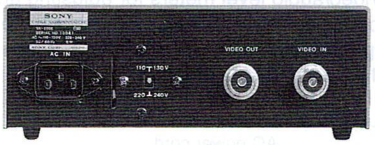
•Compensates for the attenuation caused by long-distance transmission of colour/monochrome video signals with a coaxial cable
•Especially effective for the transmission of colour video signals

**Length adjustments**

| | 3C-2V | 5C-2V | 7C-2V | 10C-2V |
|---|---|---|---|---|
| 1 | 180m | 300m | 370m | 500m |
| 2 | 360m | 600m | 750m | 1000m |
| 3 | 540m | 900m | 1100m | 1500m |
| 4 | 720m | 1200m | 1500m | 2000m |

Video input: 1.0Vp-p to 1.4Vp-p 75Ω, unbalanced
Video output: 1Vp-p, 75Ω, unbalanced
Frequency response: Flat to 4.5MHz ±2dB
Operating temperature: 0 to 40°C (32 to 104°F)
Connectors: VIDEO IN/OUT—UHF (M-type)
Power requirements: AC 110 to 130/220 to 240V selectable, 50/60Hz
Power consumption: 6W
Dimensions: 214(W) × 75(H) × 171(D)mm (8½ × 3 × 6¾ inches)
Mass: 1.4kg (3 lb 4 oz)
Supplied accessory: AC power cord





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## PVS-820S

### Matrix switcher

•Eight inputs and two outputs matrix functions •Reference video input •Equipped with a LOCK SWITCH to prevent inadvertent operation •Can be mounted in a 19-inch EIA standard rack

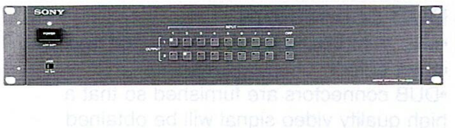
Supplied accessory: Power cable x1

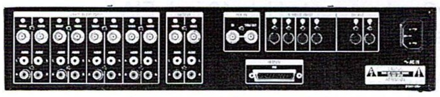
**General**
Power supply: AC 230V, 50/60Hz
Power consumption: 17W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: –20 to 60°C (–4 to 140°F)
Mass: 4kg (8 lb 13 oz)
Dimensions: 482(W) × 88(H) × 220(D)mm (19 × 3 ½ × 8 ¾ inches)

**Audio Signals**
Inputs: Type: Phono
Number of channels: eight (stereo)
Impedance: 75Ω
Reference level: –10dBu
Max. input level: +10dBu
Outputs: Type: Phono
Number of channels: two (stereo)
Impedance: 470Ω
Reference level: –10dBu
Max. output level: +10dBu
Load impedance: More than 10kΩ
Frequency response: 20Hz to 20kHz, +0.1/–0.5dB
Total harmonic distortion: Less than 0.005%

**Video signals**
Composite
Inputs: Type: BNC
Number of channels: eight
Impedance: 75Ω
Outputs: Type: BNC
Number of channels: two
Impedance 75Ω
Reference video: Type: BNC
Number of input: two
Impedance: 47kΩ
Max. input level: 4Vp-p
Frequency response: 100kHz to 10MHz, +0.3/–1dB
DG: Less than 0.5%
DP: Less than 0.5%

**S-Video**
Inputs: Type: 4-pin mini DIN
Number of channels: four**Interlocked with channels to 1 to 4 of VIDEO IN (composite)
Impedance: 75Ω
Outputs: Type: 4-pin mini DIN
Number of channels: two
Impedance: 75Ω
Frequency response: 100kHz to 10MHz





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## PVS-880S

### Matrix switcher

•Eight inputs and eight outputs matrix functions •RS-232C interface port for remote control from a personal computer •Reference video input •Memory function •Equipped with a LOCK SWITCH to prevent inadvertent operation •Can be mounted in a 19-inch EIA standard rack

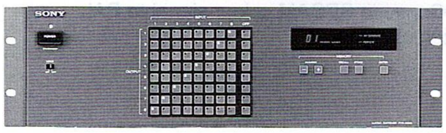
Supplied accessory: Power cable x1

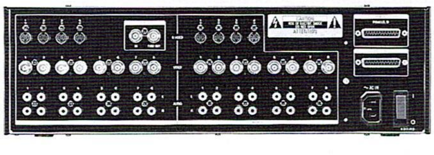
**General**
Power supply: AC 230V, 50/60Hz
Power consumption: 17W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: –20 to 60°C (–4 to 140°F)
Mass: 10kg (22 lb 1 oz)
Dimensions: 482(W) × 132(H) × 350(D)mm (19 × 5¼ × 13⅞ inches)

**Audio signals**
Inputs: Type: Phono
Number of channels: eight (stereo)
Impedance: 47kΩ
Reference level: –10dBu
Max. input level: +16dBu
Outputs: Type: Phono
Number of channels: two (stereo)
Impedance: 470Ω
Reference level: –10dBu
Max. output level: +16dBu
Load impedance: More than 10kΩ
Frequency response: 20Hz to 20kHz, +0.1/–0.5dB
Total harmonic distortion: Less than 0.005%

**Video signals**
Composite
Inputs: Type: BNC
Number of channels: eight
Impedance: 75Ω
Outputs: Type: BNC
Number of channels: eight
Impedance: 75Ω
Reference video: Type: BNC
Number of inputs: two
Impedance: 47kΩ
Max. input level: 4Vp-p
Frequency response: 100kHz to 10MHz, +0.8/-0.3dB
DG: Less than 0.5%
DP: Less than 0.5%

**S-Video**
Inputs: Type: 4-pin mini DIN
Number of channels: four* *Interlocked with channels to 1to 4 of VIDEO IN (composite)
Impedance: 75Ω
Outputs: Type: 4-pin mini DIN
Number of channels: four
Impedance: 75Ω
Frequency response: 100kHz to 10MHz





## NP-1B

### Rechargeable battery pack

- Supplies DC 12V to DSR-1P, PVV-3P, UVW-100BP, VO-8800P, DXC-D30P/D30WSP/637P/327BP, EVW-300P, PVM-9044QM/9041QM/6041QM, TU-1040E, EVM-9010PR/1410PR

Battery used: NiCd battery
Output voltage: DC 12V
Capacity: 2.3 Ah
Dimensions: Approx. 72 (W) × 25 (H) × 185 (D) mm (2$^{7}/_{8}$ × 1 × 7$^{3}/_{8}$ inches)
Mass: Approx. 600 g (1 lb 5 oz)

NP-1B
BATTERY PACK
SONY

## BP-90A

### Rechargeable battery pack

- Supplies DC 12V to DSR-1P, PVV-3P, UVW-100BP, PVM-9044QM/9041QM/6041QM, TU-1040E

Type of battery: NiCd rechargeable
Voltage: DC 12V
Current capacity: 5Ah
Dimensions: 123 (W) × 171 (H) × 37 (D) mm (4$^{7}/_{8}$ × 6$^{3}/_{4}$ × 1$^{1}/_{2}$ inches)
Mass: 1.6 kg (31 lb 8 oz)

SONY
BP-90A
12V 5Ah
Battery Pack
(1A rate)
Ni-Cd
KR35/62
ATTENTION:
ACHTUNG:
SONY CORPORATION

## BC-1WDCE

### Battery charger for NP-1B

- Battery charger for the NP-1B battery pack
- Up to four NP-1B batteries can be charged
- Auto refresh function
- Battery life indication
- Skips charging process for fully charged batteries

Power requirements: AC 220 to 240V ±10%, 50/60Hz
Power consumption: 65W
Charging time: Approx. 90min
Dimensions: 107.5 (W) × 88 (H) × 325 (D) mm (4$^{1}/_{4}$ × 3$^{1}/_{2}$ × 12$^{7}/_{8}$ inches)
Mass: Approx. 1.7 kg (3 lb 5 oz)

SONY
LIFE
POWER
ON
OFF
REFRESH
OFF
BATTERY CHARGER BC-1WD

## BC-410CE

### Battery charger for BP-90A/NP-1B

- Battery charger for BP-90A and NP-1B
- Up to four BP-90As and four NP-1Bs can be charged
- Battery refreshing function
- Trickle charge to avoid self-discharge

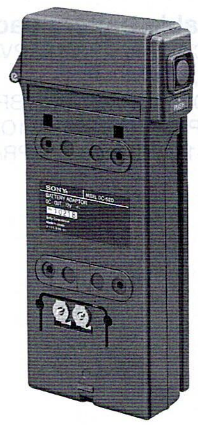
Power requirements: AC 220/240V selectable, 50/60Hz
Power consumption: 75W
Charging time:
BP-90A: 160 min
NP-1B: 90 min
Dimensions: 212 (W) × 85 (H) × 325 (D) mm (4$^{1}/_{2}$ × 3$^{3}/_{8}$ × 12$^{7}/_{8}$ inches)
Mass: 4 kg (8 lb 13 oz)
Supplied accessories:
AC power cord
Operation/maintenance manual

## DC-520

### Battery adaptor for NP-1B

- Can be attached to the supplied battery case of the DSR-1P, PVV-3P Betacam SP 2000PRO recorder UVW-100BP
- Allows the DSR-1P, PVV-3P and UVW-100BP to be operated with two NP-1B batteries
- Supplies DC 12V to the DSR-1P, PVV-1AP/3P and UVW-100BP

Dimensions: 100 (W) × 195 (H) × 44 (D) mm
(4 × 7¾ × 1¾ inches)
Mass: 230 g (8 oz)
Supplied accessories:
Screws (M3 × 6)



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## DC-500 (Mount type)

### Battery case for BP-90A

- Battery case for one BP-90A battery
- Designed for the DSR-1P, PVV-3P and UVW-100BP
- Supplies DC 12V

Dimensions: 147 (W) × 207 (H) × 62 (D) mm
(5⅞ × 8¼ × 2½ inches)
Mass: 400 g (14 oz)
Supplied accessories:
Screws (M3 × 5)

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## DC-210 (waist belt type)

### Battery case for BP-90A

- Battery case for one BP-90A battery pack
- Supplies DC 12V to Sony video equipment

Dimensions: 145 (W) × 180 (H) × 85 (D) mm
(5¾ × 7⅛ × 3⅜ inches)
Mass: 500 g (1 lb 2 oz)
Supplied accessories:
Power cord (1.2m) (×1)
Belt

---

## BP-L60/L90

### Rechargeable battery pack

- Supplies DC 12V to DSR-1P and PVV-3P

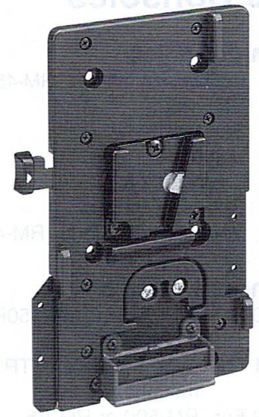
Type of battery:
Lithium-ion battery
Maximum voltage:
16.8V
Nominal voltage:
14.4V
Capacity: 60Wh (BP-L60)
90Wh (BP-L90)
Dimensions:
BP-L60:
101 (W) × 37 (H) × 168.7 (D) mm
(4 × 6⅝ × 1½ inhes)
BP-L90:
101 (W) × 60 (H) × 168.7 (D) mm
(4 × 2⅜ × 6⅝ inches)
Mass: BP-L60:
Approx. 900 g (1 lb 16 oz)
BP-L90:
Approx. 1300 g (2 lb 14 oz)

## BKW-L601

### Battery adaptor for between DSR-1P, PVV-3P and BP-L90/BP-L60

- Can be attached to the optional battery case of the DSR-1P DVCAM recorder and the PVV-3P Betacam SP 2000 PRO recorder
- Allows the DSR-1P and the PVV-3P to be operated with BP-L60 and BP-L90

| | |
|---|---|
| Dimensions: | 89 (W) × 141.4 (H) × 14.2 (D) mm<br>($3^{5}/_{8}$ × $5^{5}/_{8}$ × $^{9}/_{16}$ inches) |
| Mass: | 110 g (4 oz) |



## BC-L100CE

### Battery charger for BP-L60/ BP-L90/NP-1B/BP-90A

- Battery charger for BP-L60/BP-L90/ NP-1B/BP-90A batteries
- Up to four BP-L60, BP-L90, NP-1B or BP-90A can be charged

| | |
|---|---|
| Power requirements: | AC100V to 240V, 50/60Hz |
| Power consumption: | 110W |
| Charging time: | BP-L60: Approx. 2.5 hours<br>BP-L90: Approx. 3.5 hours<br>NP-1B: Approx. 70 min |
| Dimensions: | 330 (W) × 131 (H) × 144 (D) mm<br>(13 × $5^{1}/_{4}$ × $5^{3}/_{4}$ inhes) |
| Mass: | Approx. 2 kg (4 lb 7 oz) |

SONY
BATTERY CHARGER BC-L100

## Basic Consoles

### System consoles

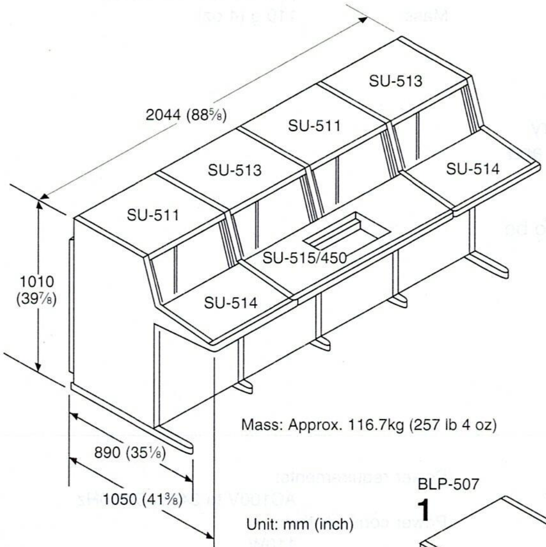
| | |
|---|---|
| SU-450 | Double size table for RM-450CE/ DME-450P |
| SU-511 | Unit rack |
| SU-512 | Unit table |
| SU-513 | Extension rack |
| SU-514 | Extension table |
| SU-515 | Double size table for RM-440 |

### Rack mount metals

| | |
|---|---|
| RMM-450 | For RM-450CE/DME-450P mounting |
| RMM-501 | For Type-5/9 series VTR mounting |
| RMM-502 | For RM-500 or RM-V5 mounting |
| RMM-503 | For RM-580 mounting |
| RMM-505 | For RM-500 (× 2), RM-V5 (× 2) or RM-500/RM-V5 mounting |
| RMM-506 | For Betamax or audio equipment mounting |
| RMM-507 | For Type-7/9 series VTR mounting (except VO-9850P/9800P) |

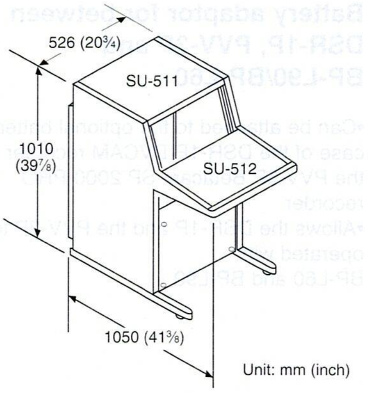
### Blank panels

| | |
|---|---|
| BLP-501 | 1U Blank panel |
| BLP-502 | 2U Blank panel |
| BLP-503 | 3U Blank panel |
| BLP-504 | 1U Pad panel |
| BLP-505 | 2U Pad panel |
| BLP-506 | 6U Modification panel |
| BLP-507 | Blank panel |

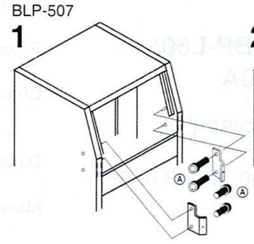

2044 (88⅝)
SU-513
SU-511
SU-513
SU-511
SU-514
SU-515/450
SU-514
1010 (39⅞)
890 (35⅛)
1050 (41⅜)

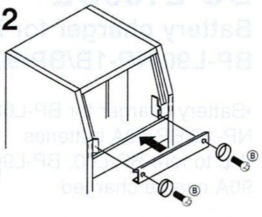
Mass: Approx. 116.7kg (257 lb 4 oz)

Unit: mm (inch)


526 (20¾)
SU-511
1010 (39⅞)
SU-512
1050 (41⅜)
Unit: mm (inch)

Mass: Approx. 37.2kg (82 lb) without VTR





# 4. Connecting cables

## CCA-7 cables (10-pin/10-pin)

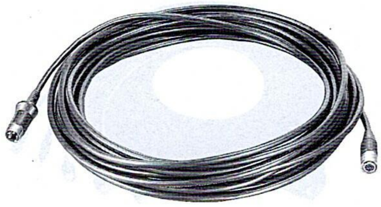
**CCA-7-5** : 5m (16.5 ft)
**CCA-7-25** : 25m (82 ft)
**CCA-7-50** : 50m (165 ft)
**CCA-7-100** : 100m (330 ft)

- 10-pin (male) ↔ 10-pin (female)
- RM-M7G ↔ DXC-D30P/637P/327BP series
- RM-M7G ↔ CCU-M7P/M5P
- RM-M7G ↔ CA-325AP/325B

## CCDC cables (12-pin/4-pin)

**CCDC-5** : 5m (16.4 ft)
**CCDC-10** : 10m (33 ft)
**CCDC-25** : 25m (82 ft)

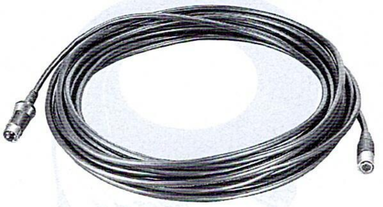
- 12-pin (female) ↔ 4-pin (male)
- DXC-107AP/151AP/930P/950P ↔ CMA-D2CE
- RM-930 ↔ CMA-D2CE



## CCDC-A cables (12-pin/4-pin)

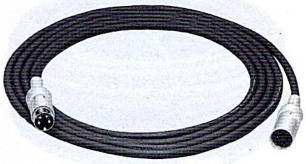
**CCDC-50A** : 50m (164 ft)
**CCDC-100A** : 100m (330 ft)

- 12-pin (female) ↔ 4-pin (male)
- DXC-107AP/151AP/930P/950P ↔ CMA-D2CE
- RM-930 ↔ CMA-D2CE



## CCDD-2.5 (4-pin/4-pin)

- 4-pin (male) ↔ 4-pin (female), 2.5m (8.2 ft)
- SEG-2000AP series ↔ CRK-2000P



## CCDQ-06 (14-pin/4-pin)

- 14-pin (male) ↔ 4-pin (male), 0.6m (2 ft)

## CCF cables (6-pin/6-pin)

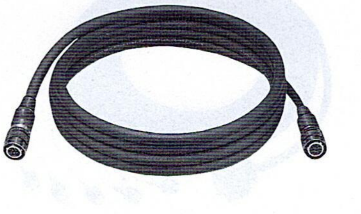
**CCF-1** : 1m (3.3 ft)
**CCF-5** : 5m (16.4 ft)
**CCF-10** : 10m (33 ft)
**CCF-25** : 25m (82 ft)
**CCF-50** : 50m (164 ft)

- 6-pin (male) ↔ 6-pin (female)
- SEG-2000AP/2550AP ↔ WEX-2000P

## CCMC cables (12-pin/12-pin)

**CCMC-12P02** : 2m (6.4 ft)
**CCMC-12P05** : 5m (16.4 ft)
**CCMC-12P10** : 10m (33 ft)
**CCMC-12P25** : 25m (82 ft)

- 12-pin (male) ↔ 12-pin (female)
- DXC-107AP series ↔ CMA-D7CE
- DXC-107AP/151AP/930P/950P ↔ CMA-D2CE
- DXC-930P/950P ↔ RM-930
- RM-930 ↔ CMA-D2CE

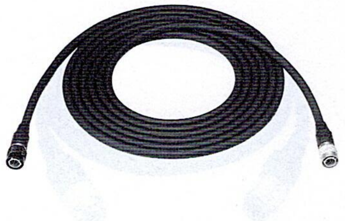


## CCMC-12P10C (12-pin/12-pin)

- 12-pin (male) ↔ 12-pin (female), 10m (33 ft)
- DXC-C1MDP Camera Head ↔ DXC-C1MDP Camera Control Unit

## CCMC-1210P3 (12-pin/10-pin)

- 12-pin (male) ↔ 10-pin (male), 3m (10 ft)
- RM-930 ↔ CCU-M7P/M5P
- For remote control system of lens zoom and focus functions



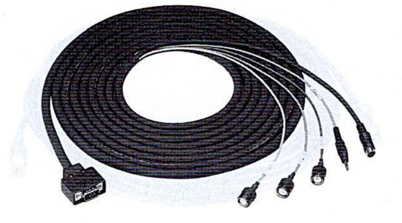
# 4. Connecting cables

### CCMC-9DS (9-pin/4BNCs, DIN 4-pin)

- 9-pin D-sub (male) ↔ BNCs (R/G/B/SYNC, male), DIN 4-pin (Y/C, male)
- 5m (16.4 ft)
- For video output from DXC-151AP/930P/950P

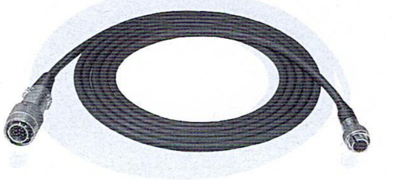
### CCMC-9DSMN (9-pin/3BNCs, AUDIO MINI JACK, DIN 4-pin)

- 9-pin D-sub (male) ↔ BNCs (R/G/B, male), DIN 4-pin (Y/C, male), AUDIO MINI JACK (SYNC), 5m (16.4 ft)
- DXC-/950P ↔ UP-7300MDP/5600MDP/1850EPM/1800EPM/1200AEPM
- DXC-930P ↔ MPU-F100P



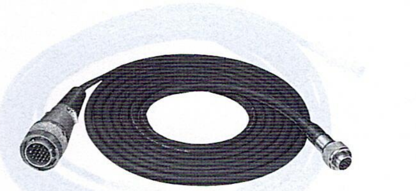
### CCTQ-3RGB (20-pin/14-pin)

- DXC-930P/950P ↔ CCU-M5P, 3m (10 ft)
- CCQQ-1 interconnection adaptor is supplied
- It is possible to extend the cable length with CCQ-AM cable
- RGB/VBS output to CCU-M5P



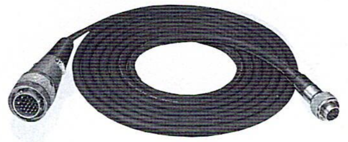
### CCTZ-3RGB (20-pin/26-pin)

- DXC-950P ↔ CCU-M5P or DXC-930P ↔ CCU-M7P/M5P, 3m (10 ft)
- CCZZ-1E interconnection adaptor is supplied
- It is possible to extend the cable length with CCZ-A cable
- RGB/VBS output to CCU-M7P/M5P



### CCTZ-3YC (20-pin/26-pin)

- DXC-950P ↔ CCU-M5P or DXC-930P ↔ CCU-M7P/M5P, 3m (10 ft)
- CCZZ-1E interconnection adaptor is supplied
- It is possible to extend the cable length with CCZ-A cable
- YC/VBS output to CCU-M7P/M5P



### CCQ-AM cables (14-pin/14-pin)

**CCQ-10AM** : 10m (33 ft)
**CCQ-25AM** : 25m (82.5 ft)
**CCQ-50AM** : 50m (165 ft)
**CCQ-100AM** : 100m (330 ft)

- 14-pin (male) ↔ 14-pin (female)
- DXC-637P/537AP/327AP ↔ CCU-M5P

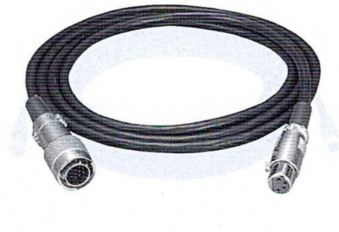
### CCQ-BRS cables (14-pin/14-pin)

**CCQ-2BRS** : 2m (6.4 ft)
**CCQ-5BRS** : 5m (16.4 ft)
**CCQ-10BRS** : 10m (33 ft)
**CCQ-25BRS** : 25m (82.5 ft) only for projector
**CCQ-50BRS** : 50m (165 ft) only for projector

- 14-pin (male) ↔ 14-pin (female)
- DXC-D30P/D30WSP/637P/327BP, EVW-300P ↔ VO-8800P/CMA-8ACE, S-VHS VTR
- VPH-1292QM/1292QMG/G70QM/G70QMG/D50QM, VPD-S1800QM, VPL-S800M/V800QM, RVP-6010QM/4015QM/401QM ↔ PC-1271M

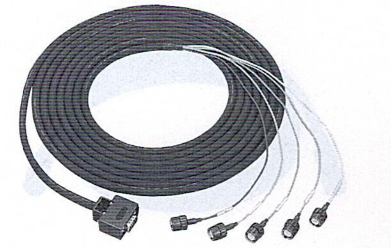
### CCQX-3 (14-pin/XLR 4-pin)

- 14-pin (male) ↔ XLR 4-pin (female), 3m (10 ft)
- For external DC input to DXC-637P/537AP/327AP/EVW-300P from CMA-8ACE



### CCXC-9DB (9-pin/5BNCs)

- 9-pin D-sub (male) ↔ BNCs (R/G/B/SYNC/VBS) (male)
- 5m (16.4 ft)
- For video output from DXC-151AP/930P/950P



## CCXC-9DD (9-pin/9-pin)

- 9-pin D-sub (male) ↔ 9-pin D-sub (male)
- 5m (16.4 ft)
- For video output from DXC-151AP/930P/950P

## CCZ-A cables (26-pin/26-pin)

**CCZ-A2** : 2m (6.5 ft)
**CCZ-A5** : 5m (16.5 ft)
**CCZ-A10** : 10m (33 ft)
**CCZ-A25** : 25m (82 ft)
**CCZ-A50** : 50m (164 ft)
**CCZ-A100** : 100m (330 ft)

- 26-pin (male) ↔ 26-pin (female)
- DXC-D30P/D30WSP/637P/327BP series ↔ CCU-M7P/M5P

## CCZQ-A cables (14-pin/26-pin)

**CCZQ-A2** : 2m (6.6 ft)
**CCZQ-A5** : 5m (16.5 ft)
**CCZQ-A10** : 10m (33 ft)

- 14-pin (male) ↔ 26-pin (female)
- DXC-D30P/D30WSP/637P/327BP series, UVW-100BP ↔ VO-8800P, S-VHS VTR
- DXC-637BP/537AP/327AP series ↔ CMA-8ACE

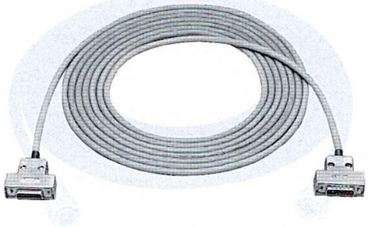
## CCZQ-A2AM cable (14-pin/26-pin)

- 14-pin (male) ↔ 26-pin (female)
- DXC-D30P/D30WSP/637P/327BP series ↔ CCU-M5P

## RCC-A cables (15-pin/15-pin)

**RCC-5A** : 5m (16 ft)
**RCC-11A** : 10m (33 ft)

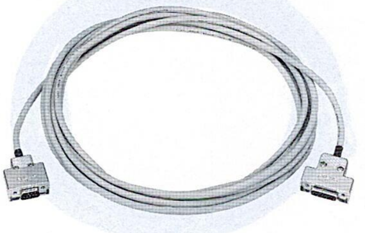
- 15-pin (male) ↔ 15-pin (female)
- BVE-600 ↔ MXP-290
- BVE-910 (with BKE-916A) ↔ MXP-290



## RCC-5AA cable (9-pin/15-pin)

### Audio mixer control cable

- 9-pin (male) ↔ 15-pin (female), 5m (16ft)
- PVE-500 ↔ MXP-290



## RCC-15FT (33-pin/33-pin)

### Remote control extension cable

- 33-pin (male) ↔ 33-pin (female), 15m (49.2 ft)
- RM-450CE/500/555/580 ↔ All Type-5/7/9 VTRs, EVO-9800P/9850P

## RCC-5F (33-pin/33-pin)

### Remote control cable

- 33-pin (male) ↔ 33-pin (female), 5m (16.4 ft)
- RM-450CE/500/555/580 ↔ All Type-5/7/9 VTRs, EVO-9800P/9850P

## RCC-G cables (9-pin/9-pin)

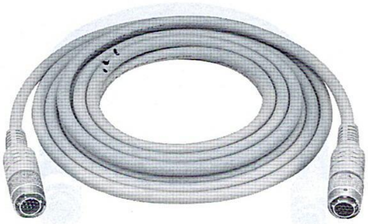
**RCC-5G** : 5m (16 ft)
**RCC-10G** : 10m (33 ft)
**RCC-30G** : 30m (99 ft)

- 9-pin (male) ↔ 9-pin (male)
- PVW-series VTRs, UVW-1800P/1700GP/1600P, VO-9850/9800P, EVO-9850P/9800P, SVO-5800P/SVP-5600P ↔ 9-pin equipped Sony machines

## SIC-M cables (14-pin/14-pin)

**SIC-M1** : 1m (3.3 ft)
**SIC-M5** : 5m (16.4 ft)
**SIC-M15** : 15m (49 ft)
**SIC-M25** : 25m (82 ft)
**SIC-M50** : 50m (164 ft)

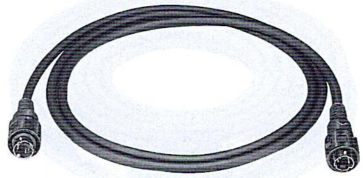
- 14-pin (male) ↔ 14-pin (female)
- VPH-1292QM/VPH-1292QMG/G70QM/G70QMG/D50QM, VPD-S1800QM, VPL-S800M/V800QM, RVP-6010QM/4015QM/401QM ↔ PC-1271M



## SYC cables (4-pin/4-pin)

**SYC-2** : 2m (6.4 ft)
**SYC-5** : 5m (16.4 ft)

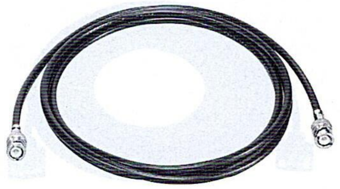
- Mini DIN 4-pin(male) ↔ Mini DIN 4-pin (female)
- PVW/UVW series VTRs
- SVO-5800P/9620/9500MDP, SVP-5600P/9020
- EVO-9850P/9800P/9700P/9650P/9500P
- SVT-S3050P



## UGC cables (BNC/BNC)

**UGC-1** : 1m (3.3 ft)
**UGC-2** : 2m (6.4 ft)
**UGC-5** : 5m (16.4 ft)
**UGC-10** : 10m (33 ft)

- BNC (male) ↔ BNC (male), 3C-2V



## VDC-5A (7-pin/7-pin)
### Dubbing cable

- 7-pin (male) ↔ 7-pin (female), 5m (16.4 ft)
- VTRs with ↔ VTRs with
7-pinDUB connector 7-pinDUB connector
VCS-500
DA-500
- DA-500 ↔ DA-500
- PVW series VTRs ↔ U-matic VTRs

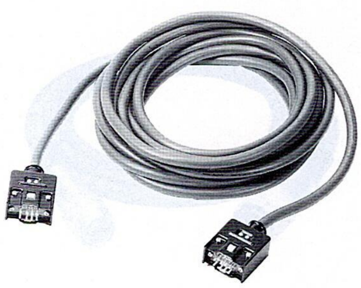
## VDC-C5 (12-pin/12-pin)
### Dubbing cable

- 12-pin/12-pin, 5m (16 ft)
- PVW series VTRs
- UVW-1800P/1600P

## VMC cables (8-pin/8-pin)

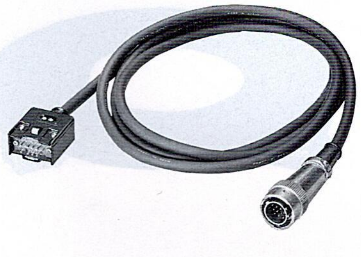
**VMC-3P** : 3m (10 ft)
**VMC-5P** : 5m (16.4 ft)
**VMC-10P** : 10m (33 ft)

- 8-pin (male) ↔ 8-pin (male)
- VTR ↔ Monitor
TV tuner
- TV tuner ↔ projector



## VMC-1MQ (14-pin/8-pin)

- 14-pin (male) ↔ 8-pin (male), 1.5m (5 ft)
- VO-8800P ↔ Monitor
TV tuner



# 4. Connecting cables

## VK-110A/120A (4-pin/4-pin)

**VK-110A** : 10m (33 ft)
**VK-120A** : 20m (65.6 ft)

- 4-pin (male) ↔ 4-pin (male)
- SSC-534AM ↔ SSM-504AM/724AMR

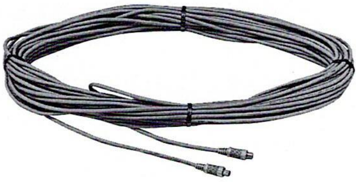
## VK-305 (4-pin/4-pin)

- 4-pin (male) ↔ 4-pin (female) , 5m (16.4 ft)
- Water-resistant extention cable SSC-534AM ↔ SSM-504AM/724AMR

## VK-310A/320A (4-pin/4-pin)

VK-310A : 10m (33 ft)
VK-320A : 20m (65.6 ft)

- 4-pin (male) ↔ 4-pin (male)
- SSC-534AM ↔ SSM-504AM/724AMR



## Cable connections

| | | Video camera | | | | | |
|---|---|---|---|---|---|---|---|
| | | DXC-D30P/D30WSP637P/ 327BP with CA-537P | DXC-D30P/D30WSP/637P/ 327BP with CA-327P | DXC-950P | DXC-930P | DXC-107AP | DXC-151AP |
| VTR | VO-8800P or S-VHS VTR | CCZQ-A | CCQ-BRS | --- | | --- | --- |
| Camera control unit | CCU-M7P | CCZ-A | --- | --- | CCTZ-3RGB/3YC+ CCZ-A | --- | --- |
| | CCU-M5P | CCZ-A | CCQ-AM | CCTZ-3RGB/3YC+ CCZ-A or CCTQ-3RGB+ CCQ-AM | CCTZ-3RGB/3YC+ CCZ-A or CCTQ-3RGB+ CCQ-AM | --- | --- |
| camera AC adaptor | CMA-8ACE | CCZQ-A/ CCQX-3 | CCQ-BRS CCQX-3 | --- | --- | --- | --- |
| | CMA-D7CE | --- | --- | --- | --- | CCMC-12P/UGC | --- |
| | CMA-D2CE | --- | --- | CCDC/CCMC-12P | CCDC/CCMC-12P | CCDC/CCMC-12P | CCDC/CCMC-12P |

### Audio connecting cords

RK-5XLRF

**RK-5XLRF**: XLR-3-11C type (female)—phono, 5m
**RK-5XLRM:** XLR-3-12C type (male)—phono, 5m

# Memo

# Memo

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